

ECONOMICS MADE EASY

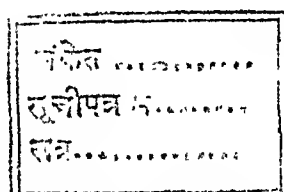
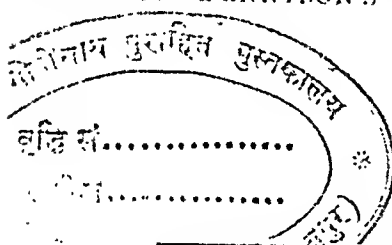
According to the University Syllabus for
B. A. Examination

WITH
THE UNIVERSITY EXAMINATION PAPERS
AND

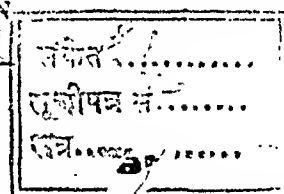
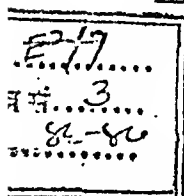
A Chart of Economics

BY

ANAND BEHARI KACKRANEA, B. A.
EDITOR OF 'TENNYSON'S MOORE D' ARTHUR'



SECOND EDITION
Revised, Improved and Enlarged



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TO
THE PIOUS MEMORY
OF
MY REVERED FATHER
THE LATE
J. GOVIND BEHARI LAL.

PREFACE TO THE SECOND EDITION.

The gratifying promptitude with which the first edition has run out, and the numerous eager enquiries made by the students of different Indian Universities about its second edition, indicate that this little help book has gained wide popularity and succeeded in supplying a keenly felt want.

In the present edition up to date syllabus has been covered and some additions have been made in the chapters of Money and Credit. Scope and Method has also been dealt with in the prescribed manner. The appendix now consists of Examination papers from 1889 to 1911.

The publishers regret the unavoidable increment in price due to the better get up of this edition and the increased cost of production in the War time.

I acknowledge my debts to my friends Mr. Raj Narain and Pandit Bhagwati Pershad for their help in the correction of proof sheets.

PIPAL HANDE, AGRA :

SKACKRANEA.

November 1911

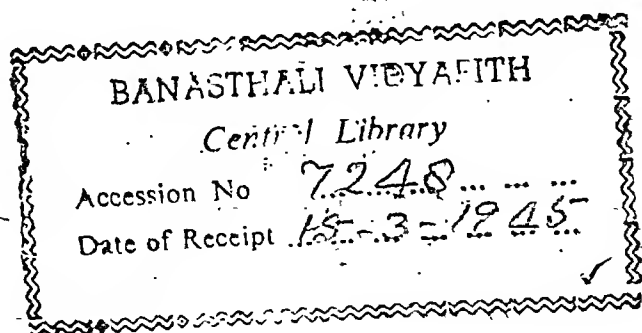


Preface to the First Edition.

This Synopsis is based on Gide, Marshall, Ely and Wicker, Walker, Fawcett, Symes and many other standard authors. Gide has been mostly consulted, and help has also been taken from the lecture-notes of eminent professors of Political Economy. In the preparation of this synopsis University Syllabus has been closely followed; and no attempt has been made at originality.

I am indebted to my friend Mr. Ganga Prashad Varma, B. A., for his help in the correction of proof-sheets.

THE COMPILER.



CONTENTS.

	PAGE.
PART I. INTRODUCTORY ...	1
PART II. PRODUCTION ...	21
CHAPTER I. Land ...	21
CHAPTER II. Labour ...	26
CHAPTER III. Capital ...	37
CHAPTER IV. Organization ...	39
PART III. CONSUMPTION ...	52
PART IV. DISTRIBUTION ...	61
CHAPTER I. Rent ...	61
CHAPTER II. Profits ...	69
CHAPTER III. Interest ...	73
CHAPTER IV. Wages ...	77
PART V. EXCHANGE ...	90
CHAPTER I. Introduction and Advantages ...	90
CHAPTER II. Markets ...	92
CHAPTER III. Metallic money ...	101
CHAPTER IV. Paper money ...	109
CHAPTER V. Credit ...	114
CHAPTER VI. International trade ...	124
PART VI. ...	132
CHAPTER I. Co-operation ...	132
CHAPTER II. Monopolies ...	140
CHAPTER III. Taxation ...	146
APPENDIX A. University Examination Papers ...	1-47
APPENDIX B. Chart of Economics ...	In the End.

ECONOMICS MADE EASY.

PART I.

INTRODUCTORY.

I. Subject-matter of the Science and its Definition.

Political Economy is one of the sciences known as the social sciences. Social sciences deal with the relations that unite men socially. As there are, among men, many kinds of social relations—moral, legal, economic, political &c.—so there are many distinct social sciences known as ethics, law, political economy, politics &c. But the lines of demarcation in these social sciences are not so clear as in sciences such as Zoology, Botany and Geology. The classification is more or less artificial. Many subjects come clearly within the scope of all those social sciences which are more closely related to each other. We need, however, only observe that the same subject may be studied from different standpoints. To *do our duty*, to *exercise our rights*, to *satisfy our wants*, are three quite different aims of human activity; and only the last of these is the proper subject of economic science. We may say, therefore that political economy has to do with the relations of men living in society, so far as these relations tend to satisfy the wants of life and concern the efforts made to provide for all that is generally understood by *material welfare*.

Marshall says:—"Political Economy or Economics is a study of man's actions in the ordinary business of life; it inquires how he gets his income and how he uses it. It follows the action of individuals and of nations as they seek, by separate or collective endeavour, to increase their material means of their well-being and to turn their resources to the best account. Thus it is on the one side a study of wealth, and on the other, the more important side, a part of the study of man. It deals with that part of the social science of man's actions in society that deals with his efforts to satisfy his wants, in so far as these efforts and wants are capable of being measured in terms of wealth or its general representative, *i. e.*, MONEY."

Definitions.—"Political Economy investigates the laws which regulate the production, distribution and exchange of wealth"—Fawcett.

"Political Economy or Economics is the name of that body of knowledge which relates to wealth"—Walker.

"Economics may be described as the science which teaches us what rules mankind should observe in order to advance in material prosperity"—Pierson.

"Political Economy is the social science which treats of that portion of human activity which is concerned with earning a living"—Seligman.

"Economics is the science which treats of those social phenomena that are due to the wealth getting and wealth using activities of man."—Ely.

From the above definitions it is clear that some economists—the earlier of classical economists—laid all the emphasis on the side of wealth, while others—modern economists, lay stress upon the human side. They emphasize the activities of man in connection with wealth and the principles which govern those activities. "The starting point," they say, "and the object point of our science is man."

II. The Divisions of the science and their Interdependence.—There are four great divisions of Political Economy.

A. The production of wealth:—This phrase means the creation of values, *i. e.*, giving of value to that which has no value, and to increase the value of that which has less value. It certainly does not imply the creation of *matter*, nor necessarily any change of form in the thing to which value is imparted. Man can only produce utilities, that is to say, man cannot create material; he can only modify its form, present it at some particular time or place, so that it has "utility" and therefore "value."

The value imparted may be (a) time-value, *e. g.*, a cake of ice which has no value in winter may acquire value by being kept until summer, (b) place-value, *e. g.*,

water when transported from U. P. to Rajputana, in times of draught, may acquire value (*e*) form-value, *e. g.*, iron wrought up into machines.

B The Exchange of wealth.—Exchange means, “Voluntary giving of one commodity or service in order to receive another in its place.” The need for exchange arises from the fact that under modern economic conditions, division of labour has been carried to its farthest limits. Every man produces not what he *requires* but what he can produce *best*. He does not generally produce for himself but for others; while others produce what he requires to satisfy his wants. Hence there should be exchange of the commodities produced in order that each producer may get what he wants for himself. For example, a man can produce caps far better than others. He would not consume all the caps he makes. He should, moreover, satisfy his other wants too. He would therefore sell his caps and get other commodities in exchange, to satisfy his other wants.

Under the head of exchange will also be included the study of the question why it is that wealth is exchanged for wealth at particular rates and not at rates higher or lower than those established by economic conditions.

This chapter will also include the study of all the mechanism by which such exchanges are facilitated.

C. The Distribution of Wealth:—Distribution enquires what are the forces that determine the share of different persons or classes of persons that take part in the production of wealth.

D. The Consumption of Wealth.—Consumption is the aim, the end of production. It means to utilize a commodity to satisfy our wants, or to apply it to the uses and purposes for which it was produced. Consumption is therefore the aim of all economic activity—production, distribution and exchange.

III. The Interdependence of Economic Phenomena.—Although for the sake of convenience the economic pheno-

mena are divided into the production, distribution, exchange and consumption of wealth, this separation of the science into distinct departments should not be thought to be rigid and absolute. They are interdependent upon one another.

(1) **Production and Consumption.**—Production and consumption are closely related. Consumption is the end and the aim of production. It is consumption that determines what kinds of wealth shall be produced and how much. Again, consumption depends largely upon production. The supply of a commodity in the market by influencing price affects the demand. When the supply of a particular commodity is scarce in the market, prices rise and people diminish their consumption of that article and *vice versa*, *e. g.*, mangoes in early and late season.

(2) **Production and Exchange**—The Circulation of Wealth, more frequently known as Exchange is only a part of Production. Nearly all the wealth that is created is produced for the purpose of being exchanged. The work of production is not complete until goods reach those persons who intend to consume them, and this is done through exchange and the agencies which facilitate exchange—*e. g.*, wholesale merchants and retail dealers, bankers and bill brokers etc.,—and thus assist production.

Division of labour which falls under production is the origin of exchange.

(3) **Exchange and Consumption.**—These two are still more closely related. The laws of demand which depend upon the laws of consumption govern the rates of exchange.

(4) **Distribution and Exchange.**—With regard to the relation between these two, it may be said, in the first place, that the distribution of wealth is affected, under modern conditions of industry, by means of exchange. "The adjustment of rates of exchange," says an economist,

"constitutes, in the aggregate, the process of distribution." In the second place, taking another point of view, the theory of cost of production involves the whole theory of wages and profits; for unless we have already determined a law of normal wages and a law of normal profits, the doctrine of cost of production is meaningless.

IV. Scope and Method. Political Economy deals with the economic activities of men living with society, *i.e.*, with the wealth getting and wealth using activities of men. It is in the main a social study. It may be classified as a branch of sociology, and sociology is the study of the natures and activities of individuals regarded as members of communities and of the relations between them. A study of systematised body of knowledge is defined by (1) its data and (2) its point of view. The data of sociology may be broadly described as all social facts; the data of Political Economy are all those social facts which have reference to wealth.

Positive and Normative Sciences and Arts.

All systematised bodies of knowledge are not sciences. Some are what are termed Arts. The term Science is an ambiguous one. Sometimes it is used in a narrow sense but sometimes in a broad sense to cover all the results of thinking about facts from whatever point of view the thinking proceeds. There are at least two possible points of view, *viz.*, the *Positive* and the *Normative*. When we assume the positive point of view we take the facts of the universe *as they are*. We study the causes underlying those facts and establish what are called laws or uniformities, *i. e.*, relations of cause and effect. When we assume the Normative point of view we deal *not only with facts but also with the ideals of facts or standards*. Ethics, or the science of what conduct ought to be and why, and Aesthetics, or the science of what perfectly beautiful things ought to be like and why, are **Normative Sciences**. All the so-called natural sciences are positive sciences. The constructor of an art assumes that the attainment of an end or ideal has been decided and tries to lay down

a logical scheme of rules for its attainment. Engineering is an art based upon the knowledge of the science of mechanics. And much of the writings grouped under the heading of politics really treat of the art of governing. The end of which the attainment is desired may have reference to some particular need or it may be the ideal defined as a result of normative enquiries. Arts are sometimes known as practical or applied sciences when the attention is focused on their scientific side.

The object of every devotee of Positive Science is to investigate a class of facts. In order to do this he must fix upon certain characteristics which distinguish the facts which he wishes to study from those which he would leave out. Thus the world of space is the scope of physics; the physicist rejects all except certain aspects of these facts. The geometrician studies only the dimensions of bodies and their chemical or physical properties. Human beings are part of the data for Biologists but merely as living organism, as sentient and self-conscious human beings are also facts for the psychologists, as engaged in governing and being governed they are facts for political sciences, as makers and sharers of wealth they are facts for the economists.

Thus we see that a certain amount of abstraction, *i. e.*, the isolation or the separation of some characteristics apart from others is necessary in every positive science.

Political Economy embraces a Positive Science, a Normative Science and several Arts.

Economic facts may be regarded from two points of view, the Positive and the Normative. But it is necessary that these two points of view should be kept separate and distinct. There are some who think that a Positive Science of Economics is not possible because it is impossible to keep the two enquiries as to *what is* and *what ought to be*, separate. But there seems to be no inherent reason why such a separation is logically impossible and

the proof that it is possible is that a positive science of Economics already exists. Moreover it is desirable that the two studies be kept separate. A systematic fusion of the two enquiries is likely to cause confusion and retard the progress of the science. It is likely to increase the already existing conclusions as to the nature of economic laws. Moreover people are more likely to agree as to facts rather than as to ideals.

But this does not mean that the economist should stop at the study of positive facts, he would be likely on the other hand to direct his energies into the most fruitful channels if he proceeds to the study of Normative Science or economic ethics or ethical economics.

Art. We now come to the Art of Political Economy. The term Art suggests a body of definite rules for practical guidance. After the investigation and explanation of facts it is possible to lay down ideals and then we have to discuss the ways and means to attain these ideals. But in laying down rules to attain certain ideals of social progress it is obvious that we cannot base our rules on economic data alone but have to take into consideration other social, physical, religious, historical and political circumstances also. Thus it is clear that an art of Political Economy will be incomplete if it is based on economic grounds while if it is complete it will have largely to be non-economic. But there is no reason why the economists should not apply the conclusions of economic science to the solution of practical problems. In fact it is necessary for him to do so if he wishes to make his studies not only light-giving but also fruit-bearing. This we may call **Applied Economics**.

The relation of Political Economy to other Sciences.

(i) *Political Economy and Physical Science.*

It is obvious that economic activities are moulded and modified to a very great extent by our physical environments. But for this reason economics is not a physical science. The relation between political economy and physical science is simply this that Political Economy takes the conclusions of the latter for granted and makes these conclusions its starting point or uses

them as its premises without trying to prove them or establish them. The difference between economic laws and physical laws is that the former imply voluntary human action while the latter do not.

(ii) Political Economy and Psychology.

In the study of political economy we have to take account of the motives which influence men in their economic activities. But the science is not therefore a branch of psychology. The bare facts that, other things being equal, men prefer a greater to a smaller gain, that under certain conditions they will forego present for the sake of future gratifications and the like, are psychological facts of great economic importance. But they are assumed by the economist not established by him. The difference between economic and psychological laws is that physical laws are simple laws of human nature but the latter are laws of complex social facts resulting from simple laws of human nature.

(iii) Political Economy is distinct from Political Science.

Although Political Economy has sometimes to take account of political and legal conditions, it is essentially concerned with men in its social as distinguished from its political relations. It is only in certain departments of Political Economy that we are concerned with men in their special character as members of a state.

(iv) Political Economy and Sociology.

Political Economy is a branch of sociology. i. e. of general science of the society. But it must be studied as an independent science. There are some who think that economic facts can not be separated from other social facts with which they are inextricably intertwined. The phenomenon of society being the most complicated of all phenomena, and the various general aspects of the subject being scientifically one and inseparable, it is irrational to attempt the economic or industrial analysis of society apart from its intellectual, moral and political analysis, past

and present. But as we have seen already, a certain amount of abstraction is necessary in every science; and to systematically combine the study of economic facts with the study of other social facts is to give up or sacrifice all the gain resulting from a scientific division of labour. the tendency of scientific progress has always been to separate the sciences not to confuse them; to divide and sub-divide the domain of their investigation, not to make of them a single field cultivated by the same hand following the same methods. Economics can well claim to be an independent science provided we remember that the study of economic phenomena can not be completed without taking account of the influence exerted on the industrial world by social facts of very various kinds. Besides, the science of sociology has not yet come into existence. It has very little results to show as yet and before economics is asked to absorb itself into it, it must justify its own existence. No doubt if that existed economics will gladly find shelter under its wings. But it does not exist. It shows no signs of coming into existence, there is no use in waiting idly for it, we must do what we can with our present resources.

Economic Method.

It is the business of economics as of every other science to observe and collect facts to describe and classify them and to draw inferences from them. In order to do this economics has to make use of all the logical methods and scientific artifices necessary to find out the truth. There are two methods of discovering truth in the Science of Economics:—Ricardo and his followers of the classical school preferred to employ the *Deductive method*. This method starts from certain general principles conceded to be beyond dispute and proceeds to educe an infinite series of propositions. *The Inductive method* starts from the observation of certain definite facts and bases its general propositions upon these observed facts. Briefly, in deduction they reason from general principles

to particular facts and in Induction from particular facts to general principles. It is therefore wrong to speak of a method of Political Economy. All the methods have to be used, and they are not peculiar to economies, they are the common property of all the sciences.

In some departments of enquiry it is necessary to collect and observe facts because the already existing facts are insufficient and inferences can not be safely drawn from them. Induction, observation, or the method of specific experience, which proceed from the particular to the general without ever reversing the order, are here important. But in some departments of enquiry we need not trouble ourselves with facts, the already existing facts are sufficient. We have to see whether the causes which lie on the surface are the true causes and the only causes of phenomena. The deductive method, or the method which proceeds from the general to the particular, is here important.

Observation or Induction is necessary to supply us with facts; the ultimate premises of deduction are drawn from observation. Observation is necessary to determine how far and in what way economic motives may be compared and measured. Observation has very important function to perform in the early stages of economic enquiry but mere facts and descriptions of facts do not constitute a science. We must draw inferences from the facts, trace effects back to their causes and assign to causes their effects, and this must be done by means of deduction. In the study of Political Economy both deduction and induction are necessary. Just as in walking both legs are necessary. All Induction is blind as long as the deduction of causal connections is left out of account and, all deduction is barren so long as it does not start from observation. For this and for other reasons there has always been and there will always be the need of the existence side by side of both class of workers, some of whom will devote their chief attention to the ascertain-

ment of facts and the others to scientific analyses, *i. e.*, taking to pieces complicated phenomenon and studying the relation of the pieces. The deductive and the inductive schools must continually exist side by side each doing its work thoroughly and each making use of the work of the other. Thus alone will it be possible to obtain sound generalizations as to the past and trustworthy guidance as to the future.

(1) **The use of Mathematics**—Political Economy is declared by Jevons to be essentially mathematical in character. And the term *mathematics* is used in a broad sense so as to include all enquiries that deal with quantitative relations. It is easy to see that Political Economy is a mathematical science. It deals with phenomena whose quantitative aspect is of fundamental importance and one of its main objects is to determine the laws regulating the rise and fall of these phenomena. Its principal theorems relate accordingly to the manner in which variations of one quantity depend on variations of another quantity. There are many advantages to be derived from the use of mathematical formulæ and diagrams in economic reasonings. **First.**—By taking particular numerical premises and working out results we may illustrate conclusions that have been obtained by means of ordinary reasoning processes. **Second.**—The use of mathematical methods results in greater precision of thought and a clear understanding of the conditions assumed. It stimulates precision both of thought and expression and hence errors due to slovenly and inaccurate reasonings are illiminated. **Third.**—The most direct and important advantage of mathematical analysis and diagrammatic representation is the fact that the significance of continuity in the variations of phenomena is brought into prominence. **Fourth.**—Another advantage of mathematical method is increased power of treating variables in their true character and not as constants (picked qualities). A point closely connected with the one just considered is the assistance which mathematics affords towards understanding the relations of mutual dependence which may subsist between different pheno-

mena e. g., supply, demand and price. Fifth.—It may indeed be added as amongst the special advantages of mathematical methods that they lead not only to accuracy and precision but also to conciseness and avoidance of circumlocution (expressing in a roundabout way.) In some cases it is possible by means of a single diagram to make intelligible at a glance what would otherwise enquire a more or less elaborate explanation.

(2) Political Economy and History.

There is a distinction between the history of Economies and economic history. The functions of economic history in connection with the theoretical problems of Political Economy are (1) to illustrate and test conclusions not themselves resting on historical evidence, (2) to teach the limit of the actual applicability of economic doctrines. It calls attention to the shifting character of economic conditions and shows how as these conditions change the laws based upon these condition should also be modified, and (3) to afford a basis for the direct attainment of economic truths of a theoretical character.

Economic friction is the countereffect produced by custom and legislation opposed to that by competition. -

Functions of economic theory in historical investigation—

1. A knowledge of theory teaches the historian what kind of facts are likely to have an important economic bearing. History does not consist merely of a narration of political events of kings and their courts, of wars and revolutions. In order to be true history, it must be a vivid description of the material as well as of the political, moral and religious condition of the people and their progress. A historian is not likely to describe economic facts correctly and to appreciate their real significance if he is not familiar with economic theory.

2. Just as it is a function of history to criticise theory, so it may be regarded as a function of theory to criticise history.

It must also be noted that economic facts and economic theory constantly act and re-act upon each other. The opinions current at any period exert an influence on subsequent events and *vice versa*. In this sense every economist may be said to be the child of his own age.

(3) Economics and Statistics.

Statistics means the description of Economics and other social phenomena by means of figures. It is regarded both as a science in itself and as a method which is of the greatest help in the study of sociology. Regarded as a method, it is based on the *quantitative observation of aggregates*. It is, in the first place, a method based on observation. It goes direct to facts which it collects and systematically arranges them. It is in the second place based on an observation of quantities. It deals with phenomena that are measurable and hence capable of numerical expression. It is in the third place concerned with aggregates as distinguished from individuals or units. Series of isolated numerical facts are popularly called statistics and they are sometimes of use as a means of information or description or illustration, but they are of little or no value as a scientific method or instrument. In the scientific use of statistics the observations must be made in mass, they must involve a certain degree of continuity and the resulting figures must be carefully and systematically grouped. In the use of statistics, considerable assistance may always be derived by the use of curves and diagrams and also graphs because these enable the mind more accurately to realise numerical comparisons.

Importance of statistics in Economics.—Professor Marshall has said that "Statistics are the raw material for the economists. They are the steam out of which we are to fashion our bricks." There are several uses of Statistics in Economics.

1. They are useful for description and illustration.

2. Statistics suggest empirical laws which may or may not be capable of subsequent deductive explanation.

3. Statistics are used to supplement deductive reasoning by checking its results and submitting them to the test of experience.

4. Statistics are most important in the application of economic science to the elucidation and interpretation of particular concrete phenomena.

* But statistics in order to give valuable results must be handled with the greatest caution and after due enquiry. Statistics, it is often said, can be made to prove any thing. There is nothing more misleading than figures and if they are used without special knowledge or grouped simply with the object of establishing a foregone conclusion the charge is well founded. As against ignorant and prejudiced statisticians or against the casual employment of a few figures picked up at random and regardless of what may be called their context it is not difficult to defend the paradox that there is nothing more misleading than facts except figures; for statistics is subject to peculiar difficulties and dangers in its use. If however the limitations of statistics are clearly recognised if they are accurately collected without prejudice and after full enquiry and their true signification and if they are fairly and properly grouped, then their value is unique and the statistical method easily makes good its claim and ranks as a thoroughly effective and reliable instrument of science.

IV.—**Definitions**—The science of Political Economy rests upon a few simple notions. Land, labour, capital, wealth, utility, value, price are the elements of the subject; and whoever has a thorough comprehension of their nature must be soon able to acquire a knowledge of the science.

Land.—Means all natural resources and includes (a) climatic conditions, geographical configuration, geological nature of the soil and sub-soil, under the general term *Environment* (b) cultivable lands, pasture

lands, building lands, under the term 'Land.' (c) all raw materials, and (d) muscular energy of animals, the propelling power of wind and of water, the expansive power of vapours and electricity under the general term *motive forces*. Some economists bring all these together under the general term "Nature."

Labour.—Labour is effort, bodily or mental, put forth by human beings, not exclusively for the sake of the pleasure immediately associated therewith, but partly or wholly, with a view to the attainment of some ulterior object.

Capital.—Capital is any form of wealth saved from out of wealth previously produced and having the possibility of being employed for the future production of wealth. In ordinary sense, the word capital means invested money that brings in income. In Political Economy, there are two essential concepts of capital :—

(a) It is that part of wealth which is devoted for the future production of wealth. All money spent in purchasing machinery, raw material or in buildings &c. in a factory is capital.

(b) It can only come into existence when men prefer a future to a present advantage, i. e., capital is the result of saving, e. g., suppose a man foregoes the intended purchase of a motor car and devotes Rs. 10,000 to the purchase of a new machine for his factory in its stead. He would be using this portion of his wealth as capital and can do so by foregoing the present enjoyment in hope of future advantage.

Wealth.—In ordinary speech the word *Wealth* is synonymous with the word *fortune*. It seems therefore strange to apply the term *Wealth* to a loaf of bread. Yet this is perfectly correct. Everything that can satisfy human wants may be called *Wealth*. The capacity for satisfying human wants is called utility. Utility depends first on a want felt by man, and secondly, on an object cap-

able of satisfying that want. Of these two features of utility, man, not the object, is more useful. Utility arises only with desire and vanishes with the extinction of desire. It is subjective, not objective. It matters little that an object has qualities that may satisfy the wants of man, if man is not aware of the fact. The falls of Niagara did not represent economic wealth until men learned how to utilize their motive power. On the contrary, it matters little that an object has not the qualities for the satisfaction of human wants, if only we think that it possesses them. There are patent medicines that command high prices although their curative powers are doubtful. Alcoholic drinks do not possess any of the good qualities attributed to them, but millions believe that they do possess these qualities; they therefore constitute wealth. Hence wealth may be defined as *all that mankind believes to be useful and can utilize.*

All the acts of men, that are useful and are paid for, may also be considered as wealth, but it is better to reserve the word wealth for corporeal objects, and designate such acts as "services."

Utility.—Utility means the power which some objects possess of satisfying human needs and desires. It is also known as *value in use*. Utility is necessary to value, but every thing that possesses utility may not possess value—the *value in exchange*. For example, air and water are most useful for life, but they are supplied in superabundance and nobody is going to pay a price for them. Their value in use is very high, but their value in exchange is nothing. The utility of a thing to a man is measured by the price that he is willing to pay for it rather than go without it.

It is important to note that utility and "advantageousness" are two different things. Suppose that a poor man has got a rupee and prefers to purchase opium rather than bread, the utility of opium is greater to him than that of bread,

Value.—The value of a thing means the power which it confers upon its possessor of commanding the labour, or the products of the labour, of others. Value, in brief, is *power in exchange*.

"Value" and "wealth" both involve the idea of utility. But these two words do not express quite the same idea. They may sometimes even imply contrary ideas. The idea of wealth, *e. g.*, is most closely allied with that of scarcity. No one is going to pay a price for a quantity of water or air; on the other hand, articles, which are scarce *e. g.*, gold, command a high price.

The idea of value necessarily implies the idea of exchange. Health is wealth and would certainly possess great value, if it could be purchased. A fine system of navigable rivers represents great wealth but no value. Even Robinson Crusoe had collected great wealth on his lonely island, but it had no value. The matter becomes clear when we distinguish between *value in use* and *value in exchange*. Value in use depends upon personal valuation. The value in use of the gun, the boat, and other articles in the possession of Crusoe might be very great to him in that lonely island, but since they could command no price, they possessed no value in exchange. Value in use is *individual value*, while value in exchange is *social value*. These two values are quite different from each other. A shilling certainly has not the same value in use—*i. e.*, utility—for a millionaire as for a poor man. On the other hand, it is evident that it has for both the same value in exchange. Value in use is simply the result of individual subjective judgments, value in exchange takes precedence over individual judgments and obliges sellers and buyers to follow the market.

What determines value? But why do we attach value to an object? we may value things because of the pleasure they give us, or we may value them because of the effort, the trouble or the pain involved in their acquisition. The innumerable theories of value may be classi-

fied under these ideas. The element of pleasure is foremost in those theories which found value on utility, while the element of pain is emphasized by the theories based on cost or labour.

I. Utility.—(a) The physiocrats regard utility as the cause of value, because utility is the characteristic of wealth. When two objects satisfy the same want, this explanation is satisfactory. Of two houses we prefer the more comfortable, of two farms the more fertile. But if we consider objects satisfying different wants—for instance, a loaf of bread and a hat—this theory fails to tell which is the more useful.

(b) It may be suggested that we should classify our wants according to reason. Shall we then put at the head of the list those objects that satisfy the most essential wants? If we look at such a list, it would be found that the value of a commodity is not directly proportionate, but often inversely proportionate to its rational utility. In a list arranged according to values, wheat, coal, iron, water,—just the objects that satisfy the most fundamental and essential human wants, occupy a *low* place. The objection that this condition of things is due to man's foolishness is not valid; for the theory of value should explain *that which is*, not *that which ought to be*. And even if the earth were inhabited only by wise men a glass of water would not be worth more than it is now, although it satisfies a fundamental human want.

(c) To escape this difficulty an attempt has been made to supplement notion of utility by that of scarcity. Utility alone can not create value; it remains, so to speak, latent, unless it is combined with the quality of scarcity. But the idea of scarcity alone is insufficient. Strawberries, at the end of the season are as scarce as at the beginning; but they have less value, because they are less desired. It is, moreover, difficult to understand the close relation between these two elements—utility and scarcity—that seem to have nothing in common.

(ii) A more recent school claims the merit of having discovered the tie that binds these two ideas by showing that they may be reconciled by means of the so called theory of *final utility*. It has done nothing more than demonstrating that scarcity, *i. e.*, limitation in quantity, far from being independent of utility, is really inseparable from it.

II. Labour.—The second theory is in a manner inverse of the first; while the first clings to the idea of gratification afforded by goods, the second emphasizes that of the effort made to get them. The basis of value, it is claimed, is human labour, though utility is not denied to be the fundamental condition of value.

(a) *Reasons in favour of this theory:—*

(i) It is more scientific; for it gives as the basis of value a precise quantitative notion. To say that a certain watch has twice the value of another because it represents twice as much labour satisfies our mind.

(ii) It satisfies better the idea of justice, because it gives as the basis of value a human element—*i. e.* labour.

(b) Yet the explanation is not satisfactory for the following reasons:—

(i) If the cause of the value of a thing consisted in the labour requisite for its production, then value would necessarily be unchangeable, for past labour is not susceptible either of a more or less. "What is done is done." Even if we consider present labour (to produce an object like it) and not past labour, there are still other objections more difficult to remove.

(ii) If labour were the cause of value, equal labours would always correspond to equal values. But we constantly see objects that have cost the same amount of labour selling at different prices: *e. g.*, two pieces of meat from different parts of the same cow.

(iii) If labour were the cause of value, value would be absent where labour is absent. This can not be admitted in many cases, *e.g.*, springs of petroleum. Wine by being stored in wine cellars, it should also be noted, acquires additional value without any additional labour.

(iv) Finally and above all, if labour is the cause of value, what is then the *cause of the value of labour*. It *has* value and is hired every day at a certain price.

It is easy to explain the value of labour by the value of its product, but if in turn we pretend to explain the value of a product by the value of the labour which produced it, we are reasoning in a circle.

It is reasonable to suppose that value has two sides, each of which contains a part of the truth—utility as well as labour, pleasure as well as pain.

Price.—The value of a thing expressed in terms of money is called its price.

To obtain a definite idea of the value of things, it is not sufficient to compare them with one another. A common measure is necessary. Such a measure enables us to compare two things in different places, or the same thing at different times. In order to measure value we must take the value of a definite object as a basis of comparison. Each nation and every period seems to have had its own measure of value. Almost all civilized people have agreed in choosing as their standard the value of the precious metals, especially gold and silver. To compare the value of any object, they compare it with the value of a particular weight of gold or silver, which serves as the monetary unit. The price of a thing therefore is its *value expressed in money*.

PART II.

PRODUCTION.

Production of wealth means, as we have seen, the creation of utilities, i.e., giving of value to that which has no value and increasing the value of that which has less value. It includes all growing and rearing of things, vegetable or animals, all the extractive industries, the manufacturing and making up of things, transportation of things, arranging for the distribution of things and, finally, the direct furnishing of services to consumers.

Having decided what we want, the next thing is to get it, or, as it is said, to *produce it*, and we should try to produce it with the least possible cost. We should satisfy our wants to the utmost with the least effort; and we should gain the maximum of pleasure at the minimum expense: this is the problem of economies. To learn how this may be done, we must enquire what is needful for the production of wealth. There are, as is commonly said, *three requisites of production*, and, before we can undertake to produce wealth, we must have Land, Labour and Capital. To these, Marshall has added a fourth element, Organization. To secure efficiency in production Organization is necessary. We must have the three factors of production and a well-organized system of production. Efficient organization depends upon proper division of labour between different classes of operatives; productions on large scale; proper business management or the direction of industry; proper use of machinery; the localization of industry, &c., &c.

Each of these requisites requires a separate and fuller treatment.

CHAPTER 1.

LAND.

1. The term "Nature" as has been applied to the factor of production "Land," does not signify a definite.

specific factor of production, but the sum total of those elements and productive forces that are furnished by our natural environment. Before we can produce anything we must have a favourable environment, land, and raw material.

(1) Under **Environment** we have to consider:—

(a) *Climatic conditions.*—*e. g.*, Nature in the tropics seems to discourage productive activity, both by her generosity and outburst of violence. Where nature provides food, man learns to avoid an effort. In those regions, moreover, physical forces are so exceedingly violent, (*e. g.*, floods, earthquakes, cyclones) that man is cowed and does not even conceive the idea of mastering and utilizing them. In temperate lands, nature on the other hand, is so niggard as to compel men to rely in a great measure on his own efforts.

(b) *Geographical configuration.*—Geographical position of a country plays an important part in its economic development. Who can estimate the influence that England's insular position has exerted on her political, industrial, and commercial development? Want of good system of navigable rivers is responsible for the fact that the continent of Africa, the seat of the oldest known civilization (that of Egypt), could not make economic progress.

(c) *The Geological nature* of the soil and subsoil is quite as important; it creates agricultural and mineral wealth. The dread with which England calculates the time, when her coal mines are liable to fail her, shows well enough how much she owes them for her industrial development.

(2) Under **Land** we have to consider the actually cultivable land, [‘This term is applied by economists especially to the soil and is used for the original and indestructible powers of the soil, *e. g.*, the fertility of a piece of land that was the result of manuring would not be included under ‘Land’ in the strict sense, because such powers are not “original.” Tin, Iron, Coal, etc., are not

included under land in the strict sense, for they are not indestructible, *i. e.*, they can be exhausted. There is an obvious distinction between a harvest of corn which can be drawn year after year from the soil, and stores of coal &c., which can be exhausted.']

(3). **Raw Material.**—The inorganic substances that compose the earth's crust, and the organic substances due to plant and animal life on its surface, supply industry with the raw materials that are indispensable to all wealth and that form its basal element.

2. **Characteristics of Lands.**—The most important characteristic of Land in the economic sense is that it is *fixed in quantity*. It can not be increased in quantity by man's exertions.

3. **Its difference from Capital.**—It differs from capital in that,

(i) land is fixed in amount while capital is not,

(ii) the former is a free gift of nature, whereas the latter is produced by human efforts.

(iii) Since land cannot be *increased* or *reproduced* in supply, its value can rise to anything, while the value of any other thing cannot rise very much above cost of production.

(iv) Land never goes out of existence, while other articles continually waste out of existence.

4. **Diminishing Returns.**—As land and raw materials are limited in quantity, the production in which they are necessary factors also must be limited. In agriculture there are two great limitations :—

(1) Agricultural production is limited by the supply of mineral substances that are indispensable to plant life. A part of these essential substances is removed with every crop that is raised on the land.

(2) Agricultural production is limited by the time and space necessary for plant life. The farmer is reduced to an almost passive part in production. He must wait patiently for the proper season. It takes months to transform the seed into ears of wheat ; and it takes years for the acorn to become an oak. Again, every plant requires

room in which to spread its roots and to breathe ; this space cannot be restricted.

(3) Land and raw materials are limited in quantity, while the increase of population is almost unlimited.

Under these circumstance it comes about that every increase in labour and capital applied in agricultural production, yields a proportionately diminished return, *after a certain point has been reached in agriculture*. Suppose an acre of land produces 40 bushels of wheat, and that these 40 bushels represent 20 days' labour, or, if we prefer to express the same thing in money, an expense of \$20. To make an acre produce twice as much wheat (i. e., 80 bushels) more than 40 days of labour or more than \$40 of expenditure would be necessary. To double the product it would be necessary to treble, perhaps to quadruple, the labour and expense. This fact is expressed by the Law of Diminishing Returns, according to which the returns are not directly proportionate to the increased expenditure of labour or capital. The law of diminishing returns is only true after population has reached a certain degree of density and even then improvements in the methods of production have a counteracting tendency.

This law applies not only to the cultivated field, but to grazing lands, to the mine, the forest and the sea. It governs the cost of producing fish and whale oil ; fuel and timber for manufacture, coal, iron, and copper for the furnace and the forge ; wool for clothing etc.

5. Rents.—Rent has been defined as the remuneration for the use of land or for the original and indestructible powers of the soil.

6 Land Improvements.—We have seen that in the cultivation of land, after a certain point, the law of Diminishing Returns begins to operate. But there is one remedy for this evil. The law will hold good only so long as there are no simultaneous improvements in the art of agriculture. If land improvements are continually brought about, it is possible that every additional dose of labour and capital may yield an equal return. These improvements may be :—

1. Improvements in implements.

2. Improvements in crops, *e.g.*, introduction of a four-course rotation of crops, etc.

3. Investment of capital into the land by the landlord, for permanent improvements, *e. g.*, wells, farm buildings, &c. Obviously this is only possible when the lord expects to receive returns which will repay the capital expended.

7. Land Values and Economic Progress—The simplest idea involved in economic progress is *increase in wealth*. But "the most decisive mark of the prosperity of any country is the increase of the number of its inhabitants." In estimating progress in population, however, we have also to consider the progress of the nation in quality, *i. e.*, in morals and manners. Another way of testing the progress of a country is by finding out the proportion of the capital of the country that is paid as wages to its population.

In connection with land, it may be said that land values will be influenced conspicuously with economic progress of a country, by the growth of population, improvements in different branches of production and improvements in the means of transport.

We consider their effect upon land values under two heads (1) Urban Rents and (2) Agricultural rents.

I. Urban Rents :—

(a) *Growth of population* would raise urban rents; for the supply of land is limited (whether for building purposes, or for agriculture) while the demand rises with progress in population.

(b) *Improvements in architectural science* would enable people to raise the height of buildings with modern appliances of lifts &c., to partly remedy the above evil.

II.—Agricultural Rents :—

(a) *Growth of population* would increase the demand for foodstuffs, and land being fixed in quantity, its supply will be limited. Hence the value of land will steadily rise.

(2) *Improvements in Agricultural science* would

allow the same amount of produce to be raised from less land (*e. g.*, by improved rotation of crops), or the same amount of land to raise the same supply at less marginal cost. This will tend to diminish the amount of rent, and will, to that extent, remedy the above evil.

(3) *Improvements in the means of transport*—would enable more productive land to take the place of the less productive. So far will the improvements counteract inferiority of situation. They will enable the produce of new countries, where the law of diminishing returns has not yet begun to work, to be supplied to those places where there is a shortage of provision. Thus the value of land will be diminished.

CHAPTER 2.

LABOUR.

II.—Definition:—Labour is human exertion of mind or of body undergone with the object of creating utilities.

This factor can only claim to be an agent of production in the strict sense of the word. Only man plays an active part in production. Nature is purely passive, though it is indispensable to production. People seldom realize what an important part labour plays even in those products that are often inaccurately termed *natural*. They are ready to believe that every thing that grows on the earth is due to the generosity of nature. As a matter of fact nearly all the plants which supply man with food have been modified by cultivation and by the labour of hundreds of generations. Between the acid berries of the wild vine and our grapes, between the succulent fruits of our gardens and the bitter or even poisonous wild-fruits, there is a vast difference, so great indeed that our fruits may be regarded as artificial products, that is to say, as creations of human industry.

It is true, however, that some wealth is not the product of labour, precisely because it existed before any act

of production, *e. g.*, soil and all the substances with which it supplies us. Even in this, labour plays some part. We must bear in mind two points:—

(1) This natural wealth does not exist as wealth, *i. e.*, as useful and valuable objects, until human intelligence has been able to discover its existence and to perceive that it can satisfy our wants.

(2) Natural wealth cannot be utilized until it has undergone a certain amount of labour. Virgin soil must be cleared of its trees and underbush, before we can use it.

II. Distinctive qualities:—There are two chief distinctive qualities of labour. *Productive and Unproductive.*

Productive labour is that which produces utilities fixed and embodied in material objects. All other labours are unproductive; because they fail to attain the object of the worker.

Evolution of Ideas concerning the Productivity of Labour.

It is interesting to follow the succession of economic doctrines regarding the problem of the productivity of various kinds of labour. The title *productive*, originally, was applied to one kind of labour, but it has gradually been extended in its application, and is now bestowed on all kinds without exception.

(1) *Agriculture.*—The Physiocrats confined the epithet *productive* to agricultural labour and denied it to all other labours. According to them agricultural and similar other labours furnish all the materials for wealth, while other occupations only work them up.

(2) *Manufacturing.*—The definition of the physiocrats was too narrow. The raw product of agriculture and mining is usually unfit for consumption; it must undergo numerous modifications which are affected by manufac-

turing industries. It is an error to say that agriculture and mining create wealth, that manufacture or industry only transforms it. The farmer creates nothing; he simply transforms the elements contained in the soil and air.

Ever since Adam Smith wrote on the subject no one has hesitated to regard manufacturing as *productive labour*.

(3) *Transportation*.—With regard to the labour of transportation there has been more hesitation, because it seems to make no change whatever in the article transported. This feature of identity, it was urged, distinguishes transportation from manufacturing.

If we decide that displacement is not essential enough a modification to entitle it to be called productive, then we cannot call mining productive either. What distinction is there between the work of a miner and that of the wagoner unless we pretend that displacement is productive only when it takes place vertically and not so when it takes place horizontally?

(4) *Commerce or Trade*.—With regard to this, the hesitation has been even longer. It may be said that commerce or trade, i. e., buying for the purpose of selling, does not imply any creation of wealth.

We must observe that commerce cannot very well be separated from transportation. Merchants are the real directors of transportation; the carrying industries do their bidding. Moreover, they also preserve and store up goods, and sometimes even subject them to slight modifications. Even when commerce is nothing more than exchange pure and simple, the mere act of transferring a thing to the person who will utilise it must be regarded as productive.

(5) *Liberal Professions*.—Finally, discussion has been keenest with regard to services, such as those rendered by the liberal professions. It may be asked, where are the products of the labour of a Judge or of a Surgeon? Two facts must be noted in this connection:—

(a) Production has for its direct object the satisfaction of human wants, and some wants may be satisfied without the intervention of material objects.

(b) Owing to division of labour, there is such an interdependence in the labours of men that even immaterial services are an indispensable condition of the production of all material wealth. Undoubtedly the various kinds of labour do not contribute in just the same way to production. It is not even necessary to determine which of these labours is most useful economically. What we need is a proper co-ordination of the various functions of labour.

III. Skilled and Unskilled Labour. Unskilled labour may be said to be labour for performing which no special training is required. For example, where education is universal, an occupation may fairly be classed as unskilled, though it requires a knowledge of reading and writing (*e. g.*, the work of a copyist).

These terms are relative and vary very much from time to time and country to country. In districts in which manufactures have long been domiciled, a habit of responsibility, of carefulness and promptitude in handling expensive machinery and materials, becomes the common property of all; and then much of the work of tending machinery is said to be entirely mechanical and unskilled, and to call forth no human faculty that is worthy of esteem. But such a work, undoubtedly, could not be done so skilfully by a very large majority of people in the world. Perhaps half of the world's population could not do it well even by steady training for two generations.

Those kinds of manual work which require long continued practice in one set of operations are becoming rarer; for machinery is constantly taking over work that requires manual skill of this kind. Thus the manual skill that is so specialized as to be wholly incapable of being transferred from one occupation to another, is becoming steadily less and less important. Increasing importance is being attached now to general ability rather than to specialized ability.

General Ability and Specialized Ability. The term *general ability* may be used to denote "those faculties and that general knowledge and intelligence which are in varying degrees the common property of all the higher grades of industry."

The term *specialized ability* may mean "that manual dexterity and that acquaintance with particular materials and processes which are required for the special purposes of individual trades."

The terms *skilled and unskilled* may be used in their ordinary every day sense *bearing in mind their relativity.*

IV. Conditions of efficiency and influence of heredity.—In considering the supply of labourers or the labour power of a country for the production of wealth, we have not only to consider the number of labourers available, either for production as a whole or for particular branches of production, but also how long do they live and,

(2) their individual efficiency

(3) the organization of labour.

I. The number of labourers.—In the animal and vegetable world the growth of number is governed by two forces:—

(a) The tendency of the individual to propagate his species.

(b) The struggle for life which thins out vast numbers.

In man only these forces are complicated by other considerations. On the one hand regard for the future exercises a restraining influence. On the other hand society puts pressure on the individual sometimes to accelerate and sometimes to retard the growth of population.

Malthus declared in his essay on population the importance of moral restraints. He says that:—

(1) Population tends to increase faster than the means of subsistence.

(2) Population invariably increases, where the means of subsistence increase, unless checked.

(3) Those checks which bring population down to the level of subsistence are all resolvable into moral self-restraint, vice and misery, disease and famines.

The chief item of self-restraint is generally called "Standard of comfort." Thus an increase in the means of subsistence may lead to a rise in this standard and this would prevent an immediate increase of population. In this connection Prof. Marshall observes:—

"It seems *prima facie* advisable that people should not bring children into the world till they can see their way of giving them at least as good an education, both physical and mental, as they themselves had."

II. Individual efficiency.—The efficiency of the individual labourer depends upon several factors:—

(i) *Health and strength.*—The first condition of the fit workman is physical vigour. It is largely influenced by climate and races. In climates of excessive heat and excessive cold much vigour is lost. Men can work best in temperate climates. Again, some races are naturally stronger and more vigorous than others. Besides these, much depends upon the amount of rest obtained between the periods of work, upon the hopefulness, freedom; security etc. of the workman; upon more or less plentiful diet; upon good or bad sanitary arrangements; upon the nature of the occupation and, not least, upon the original constitution of the labourer. It also depends upon custom *e. g.*, early marriage system among the Hindus weakens their physique.

(ii) *Knowledge and mental ability.*—By mental ability is here meant general ability as opposed to specialized ability. These depend on bringing up and education of the workman. If he is well educated and intelli-

gent, possessing general ability he needs (a) a shorter apprenticeship, (b) less superintendence, and is (c) less wasteful of materials. only because he understands the nature of the stuff he handles, and the working of the tools and machinery he uses.

(iii) *Moral character*.—Equally important (as mental qualities) are the moral qualities. A workman should be honest and trustworthy and must possess the moral virtues of diligence, care, self-reliance. He should not be easily discouraged and he must take an interest in his work.

(iv) *Influence of Heredity*.—Quite obviously hereditary qualities are of great importance in producing efficiency. The children of people engaged in a certain industry are much more likely to do well at it than the children of other people. Skill in that industry becomes hereditary. Mysteries are no mysteries. The craft, so to speak, is in the air; and children master its intricacies before they grow up. In this connection it may be said in favour of the caste system that it produces hereditary skill

III.—Organization.—Organization of industry is very important. Large numbers of workmen cannot do very much unless they work together and help each other. Efficient organization demands that the individual should be employed as fully as possible at just that work for which he is most suited and that he shall have the best possible machinery to assist his efforts. This is the big justification for the division of labour.

The division of labour means "the separation of the total labour required for the manufacture of single product into various distinct processes, and allocation of each of these processes to a particular labourer or body of labourers." In the division of labour every workman performs only that task for which he is most suited.

(a) **The conditions of the division of labour.**—

(i) It prevails to a large extent only in large centres of population, where the size of the market is great and production on a large scale necessary.

(ii) There must be continuous not intermittent production. Hence the conclusion is drawn that division of labour is not applicable to agriculture.

(b) The advantages of the Division of Labour.

The reasons why division of labour increases the productive power of labour are as follows :—

(i) The most complicated work can be divided into a series of very simple and almost mechanical operations. It is the division of labour into simple constituent parts that had made it possible to construct machinery for doing work that at first sight appears to be most complicated.

(2) The division of labour creates a great diversity of tasks, and enables us to fit each of these tasks to the individual capacities of the workmen.

(3) The constant repetition of the same task results in developing remarkable dexterity in manual labour.

(4) Economy of time results from continuous work.

(5) Economy of implements reaches a maximum when each labourer employs but one tool and uses it constantly.

(6) A shorter period of apprenticeship is necessary to learn one particular branch only.

(c) Drawbacks.—But as opposed to all these advantages, some serious drawbacks have been pointed out :—

(i) The degradation of the workman, who performs the same simple operation all the time and is thus reduced to the rôle of a mere machine. Lemontey says : "It is a sad confession for a man to make that during his whole life he has done nothing more than make the eighteenth part of a pin."

It may be said that the introduction of machinery constantly tends to remove this evil effect of the division of labour. As soon as any productive operation becomes so simple as to be purely mechanical, it can not be long before the workman will be replaced by a machine. Again legislation tries to reduce the length of the work day, thus leaving the workman spare time.

(ii) The extreme dependence of the workman who is incapable of doing any thing except the particular operation to which he has become accustomed, and who therefore is in constant danger of being helpless when discharged.

What, then, must be our final judgment regarding the division of labour? The disadvantages of the division of labour far outweigh the advantages. To be sure, there are many kinds of mechanical work that stunt the intelligence; but this is not due to the division of labour. Would the workman who makes pin-heads gain much intellectually and morally by making whole pins? The work of a street sweeper is not divided. Is it therefore nobler than that of a labourer who makes nothing but nails?

V. Mobility:—

Mobility is another quality of labour that effects the supply of labour in a country. It may be defined as the power of the labourer to change either his occupation or the place in which he works. The first named obviously is a difficult power to acquire because a man who has learnt one trade finds it difficult to undergo the training necessary to enable him to earn good wages in another trade *e.g.*, a *mistree* can not easily become a farmer. Mobility from place to place is only possible to a very small extent, specially in India, owing to ignorance, etc.

A. Obstacles to mobility.

From trade to trade:—

(i) A man lacks opportunities and means of learning another trade.

(ii) Sentiment and religious considerations often become obstacles for mobility from one occupation to another. For example, in India, a Brahman milk-seller would never work in a shoe-factory.

From place to place:—

(i) He often lacks the means of moving from one place to another.

(ii) He is ignorant of places wherein he may find new openings for employment.

(iii) Religion and custom, and above all family affection, tie him down to one place.

(iv) Men are checked frequently from moving about because of the difficulty of language.

B. Remedies.—(i) A general diffusion of elementary education coupled with,

(ii) The distribution of organised information as to places where labourers should go or should not go.

(iii) When the labourers are well-organised there should be some fund which could be used for the purpose of making temporary loans to men who are genuinely in want of work but lack the means to travel.

VI. Combinations.—The workman who deals individually with the employer is at a considerable disadvantage for the following reasons:—

1. The labourer *must work* in order to live *i. e.*, must sell his labour whereas the capitalist can wait.

2. Generally the employer can do without the workman, but the labourer cannot easily find out a new employer.

3. The employer possesses, generally speaking, full knowledge of the conditions of the market and has better opportunities for grasping the whole economic situation and taking advantage of it.

Therefore the contract between a labourer and an employer is not generally a free contract. The former can only reject or accept the terms offered and in most cases, he is obliged to accept them under pressure of want.

But when labourers in the same trade *combine, i.e.*, form an organisation both parties are more likely to be on equal footing as:—

(1) These organisations enable the workman to reject disadvantageous terms and support him during unemployment by means of contributions from members.

(2) Since all workmen in each branch of production combine to make a collective whole, the employer can not deal with a single individual but with a whole group through its representatives. Thus there is "collective bargaining".

(3) They provide bureaux of information for labourers; they can have competent and experienced leaders, who can find out the industrial situation as well as the employers and who can therefore prevent unwise conduct on their part. The aim of such combinations is not to fix arbitrary rates of wages, but to obtain the rate of wages justified by the general condition of the market and not determined by certain accidental circumstances, *e. g.*, relative poverty of the labourers and the dire want of food that sometimes obliges them to accept the employer's terms.

Associations of labourers belonging to the same trade are not new institutions but date from the middle ages. In England they are called "Trades Unions." But during the Reformation they were dissolved. Later on, the *Combination Laws* were passed forbidding workmen to unite. It was not before 1871, that the labourers were, in England, allowed to organize permanent associations though it is the classic country for this movement. In 1902, there were 1236 trades unions in England having 1,922,780 members.

§ Functions of "Trades Unions."

(1) To collect funds from members and support those who cannot find work except on terms below standard.

(2) To grant provident benefits to members in need of them.

(3) To try to secure increase of wages, reduction of working hours, healthy and safe conditions of work and to defend individuals against their employers.

Combinations of labour, have undoubtedly increased power of the working class. They have contributed to the education of labourers, and promoted culture and social intercourse among their members, and have secured better conditions in the labour contract in several ways. They have decidedly increased wages. One of the means of accomplishing this is by having recourse to *strikes*, for which please see the chapter on Wages.

CHAPTER 3.

CAPITAL.

Capital is the second great factor of production.

I. It has got two qualities :—

(a) *Fixed capital i. e.*, capital that can be used to serve for several productive acts. It may include the most fragile implements, such as needles, and the most durable kinds of wealth, such as canals or tunnels, which last as long as the world.

(ii) *Circulating Capital i. e.*, capital that can be used only once, because it is consumed in the act of production. For example, the wheat that is sown, manure that is mixed with the soil, coal that is burnt, cotton that is spun, wages that are paid to the labourers &c., &c.

Fixed capital is practically invested capital and comprehends machinery, houses, public-works, railways, canals, improvements to land and anything productive which exists in a durable shape. Circulating capital, on the other hand, comprehends raw materials, metals, minerals, &c., &c. This term (circulating) is not a happy designation. This kind of capital does not circulate. It fulfils the whole of its function by a single use. The term "Floating capital" has been suggested for this kind of capital.

II. Distinction between wealth and capital.—There are three kinds of wealth :—

1. That which serves only for consumption and which is not capital, although it may at any time become capital, e. g., ornaments.

2. That which like the preceding, serves only for consumption, but which, nevertheless, gives its owner an income derived from the income of others. This is called *Lucrative capital*.

3. That which is actually employed in production, and which is therefore called *Productive capital*.

III. The Productivity of Capital—It is customary to say that capital yields an income. This seems to be an essential part of its nature just as trees naturally bear fruit or as hens naturally lay eggs. Hence the income provided by capital is regarded as a produce due exclusively to capital. But the idea of its natural productivity should be abandoned. It is a pure chimera. Not only has a bag of money never produced a single cent, but a bale of cotton or a ton of iron never has produced any cotton or iron. Capital is inert matter and by itself is absolutely sterile. But only when it is put in the service of labour does it give labour a degree of productivity that may be very great. With a horse and a plough a farmer can produce much more wheat than with his manual labour. This surplus crop is the income from capital.

IV. Conditions of Accumulation.—In order to be better off and not to be worse off in future, saving is necessary. People save money, that is, "put it aside" for their old age or for their children &c. It is well to examine the conditions which govern the accumulation of capital.

(a) As subjective condition to saving, there must be a certain degree of foresight. People must be able to realize their future.

(b) As an objective condition to saving, it must be possible to preserve the commodity saved. Under ordinary natural conditions there are few objects of consumption, the use of which can be postponed without danger of deterioration or total loss of utility and value. But with the invention of metallic money, saving has been facilitated. We do not store perishable objects but change them with metallic money, put them in a safe place and at any

subsequent time, we or our descendants may exchange them for any kind of wealth they choose. The invention of credit, it should be noted, is a more marvellous instrument for saving than money.

(c) Before a man can save, his labour must yield more than necessities of life.

(d) Finally, there must be institutions or devices for facilitating saving, or at least for making it possible. For example, savings banks, mutual providential societies, consumers' co-operative societies, co-operative credit societies, &c.

Chapter 4.

ORGANIZATION.

We have seen that in order to obtain best results, to create the greatest possible number of utilities at the least possible cost, organization of industry is necessary. The addition of organization as a fourth agent of production by Marshall is perfectly justified. But before discussing the several heads included in the chapter of organization, we must know what services does each of the three traditionally recognized factors—land, labour and capital, renders to production.

1. The three Agents and the extent to which they are needed.—For the purpose of simplicity the three agents of production recognized traditionally are Land, Labour and Capital. But from the point of view of Production—not *Distribution*—these three factors play unimportant parts. Of the three, labour is the only one that can claim to be an agent of production in the exact sense of the word. Only man plays an active part in production; nature is absolutely passive, and merely obeys man, often after long resistance. Nevertheless, whenever we have to do with material wealth, nature is indispensable to production. It may therefore be called a factor of production,

for it is not only a necessary concomitant of labour, but must exist before labour. The activity of man does not really create, but must find in the outside world those indispensable materials on which it operates. These materials are furnished by nature. The third factor, capital, plays also a purely passive part, and hence it should not be called a productive agent. Logically and chronologically it is derived from the two others. Capital is only a product of labour and nature, set aside for productive uses.

NOTE—It is possible, however, to conceive of (1) commodities in the production of which neither labour nor capital has contributed anything *e. g.*, caves used as dwelling; wild fruits used as food of man etc. (2) of wealth in producing which no capital be employed, *e g*, Pebbles of value even in their neat state, picked up on the beach; or earthen cups shaped by hand and baked by sun. But these are rare cases.

2. Production on a large and on a small scale.—In manufacturing industries production on a large scale is generally advantageous, while in agricultural industry, production on a small scale is found to be good.

A. Large scale production is only possible where the market is wide and the demand great.

(i) Advantages of Large scale productions :—

(a) Economy of labour.—Economy of labour and skill due to the introduction of more perfect division of labour and bringing the labourer together. For example, take a hundred firms, each employing ten men. If we merge them into one large establishment, it will not be necessary to retain all the employees in order to do the same amount of work. There will be no need for a 100 cashiers or a 100 book-keepers. Many of them may be easily dispensed with.

(b) Economy of place.—To obtain a hundred times more room in a factory, it is not necessary to have a piece of ground a hundred times as large. When the volumes of two cubics are as 1 to 1,000, their surfaces are as 1 to 100; and it is the surface that costs most.

(c) Economy in natural agents.—A powerful steam engine consumes, relatively speaking, far less coal than

a weak one. Electric lighting is more economical than gas illumination when used for a large area, but it is exceedingly dear when used on a small scale.

(d) *Economy of capital*.—A large store transacting 100 times the business done by a small one need not keep on hand a hundred times the goods kept in stock by the smaller one. A smaller quantity with frequent renewals will be sufficient. Again, merchants buying on large scale can secure better bargains. Therefore big merchants that buy in large quantities can make more effective use of their capital.

[Advantages pointed out by other authors.]

(e) Use of highly specialized machinery.

(f) Possibility of experiment and new inventions. Large firms can employ scientists and carry on the work of research and experiments in any branch of industry.

(g) Utilization of a multitude of by-products.

(h) Large savings possible by carrying on subsidiary processes, *e.g.*, sale of ores in iron foundaries.

(i) A wide reputation secured by means of advertisement; efficient and specialized services, and conveniences for customers, which would be impossible in a small business.

(ii) **Disadvantages:—**

(a) If demand be misunderstood and production carried on misdirected, it would involve far greater loss.

(b) This system gives rise to bitter conflicts of interest between labour and capital.

(c) Production on a large scale may give a greater net produce, *i.e.*, greater profit to the land owner, but generally yields a smaller gross produce, *i.e.*, less food and less wages for the nation.

(d) There are some kinds of farming *e.g.*, dairy farming, vine farming, which require great care and which are consequently better managed by small farms.

Advantages of small scale production.

These are chiefly in connection with *Agriculture*.

1. Generally, agriculture allows less systematic organization than manufactures and a less thorough application of the principle of Division of Labour. Machinery is much less used in agriculture than in manufacturing industry and the collection of large masses of workers as in manufacturing centres is impossible. It is also not possible to keep one man always at one small portion of work, owing to the fact that work varies at different seasons of the year, hence labour can not be espezialized. The small farmer, too, who is the owner of his land, works with an ardour that brings about the maximum of production.

2. The advantages of personal supervision, business superintendence and personal interest, are more obvious and important in agriculture than in most manufacturing businesses.

Small scale production is then advantageous in industries which do not permit of a thorough application of the division of labour and which demand the incessant invigilence of personal ineterest.

3 The Employer.—(a) *Why is he needed ?* With the progress of division of labour, and large scale production etc., need arises for a master, known as the employer, or the entrepreneur. He is needed not only to enforce discipline and organize labour, but also to decide what shall be made and at what price shall it be sold. Thus the industry of the world is not tending towards democracy but in the opposite direction.

Many economists have advocated co-operation as a means of abolition of mastership, but the conditions under which modern production is carried on are so complicated that the abolition is less feasible now than ever.

(b) *His Qualities.*

1. In his first rôle as a merchant and an organizer of production, he must have a thorough knowledge of his trade. He must have the power of forecasting the broad move-

ments of production and consumption, of seeing where there is an opportunity for supplying a new commodity that will meet a real want. He must be able to judge cautiously and undertake risks boldly.

2. His second duty, as an employer, is that he must have a power of first choosing his assistants rightly and then trusting them fully; of interesting them in the business and of getting them to trust him, so as to bring out whatever enterprise and power of origination there is in them; while he himself exercises a general control over everything, and preserves order and unity in the main plan of the business.

NOTE.—The employer proper is a man who borrows the capital of others and hires labour for carrying on his business. He himself of course undertakes all the risks of the business and he himself controls and manages the business.

(c) *Advantages and disadvantages of the system.*—The great advantage of this system is that it enables the ablest man in the country to control the industry of the country.

(d) The great *drawbacks* of the system are :—

(i) Since the producer is not in immediate touch with the consumer, there is the possibility of great misunderstanding between the two and it is possible and indeed it frequently happens that demand is misunderstood, production carried on wrong lines, and great loss is incurred.

(ii) There is, also, the possibility of great loss: that a supremely successful employer, a man of business, may be succeeded by one of less powers. This is not only possible but probable, since the son of a successful employer brought up in ease, wealth, and luxury, is very unlikely to be a successful employer himself.

4. *Machinery.*—In the modern conditions of industry there is a very great tendency to replace manual labour by motive forces chiefly machinery.

(A) There are *direct advantages* resulting from the proper use of machinery which economists have pointed out. The principal of them are the following :—

1. Machinery diminishes the strain on human muscles and relieves men of the grievous fatigue which makes them prematurely old.

2. Machinery permits the employment of workers of average strength and ability for tasks that formerly required an exceptional degree of one or both.

3. Machinery performs work much more rapidly than would otherwise be possible.

4. Machinery excels both in the performance of exceedingly great tasks and in the accomplishments of of exceptionally delicate ones.

5. Machinery performs the monotonous work and lessens the monotony of life.

6. Machinery permits the production of a large number of exactly identical pieces or products and thus gives rise to the modern system of "interchangeable parts" permitting the broken parts of machines to be replaced at once by exactly similar pieces. [As a result of this small machines will tend to be increasingly used in domestic industry.]

7. Machinery weakens the barriers between different trades ; because many machines which are in use in one industry are similar in general character to those used in many other industries.

(8) Machinery increases the demand for general intelligence.

But against these advantages we must remember :—

B. Its disadvantages :—

(1) The displacement of labour by machinery always results in misery for the manual labourers if there is no other opening for them, however temporary the distress may be.

(2) Machinery makes a man a tender instead of a labourer. He feels a machine instead of performing arduous physical toil. It supplants one kind of monotony with another. Besides this, it frequently has the most disastrous effect on physique. It may change an outdoor to an indoor occupation. It must involve a decrease in the physical energy required.

Note:—Obviously this movement exhibits the division of labour in its most general form, and in order to introduce machinery successfully there should be a wide market for the commodity produced.

C. *Its effects upon the labouring class.* The classical economists endeavoured to show that machinery does more good than harm to the working classes. The three classical arguments are the following:—

(1) Machinery lowers prices by lowering the cost of production. Hence the workman gains an advantage as consumer equal to his loss as producer.

(2) Every mechanical invention lowers prices; lower prices involve greater demand and hence increased production. The final result is always to give new employments to the workmen that have been temporarily displaced.

(3) Machinery economizes manual labour, which involves gain for some one—either to the consumer in the form of reduced prices or to the producer in the form of greater profits. The money previously paid to the workmen is saved and is afterwards either spent or invested. Both would encourage industry, increase production and give new openings to the labourers.

(4) Again, every mechanical invention sets free a certain quantity of capital also. As these two elements—labour and capital—have a great affinity and can not do without each other, they will end by combining and would supply new work for the labourers.

But against these may be said that:—

(1) The compensation in reduced prices will not exist, if the product in question is not one consumed by the

labourer *e. g.*, cheapening of laces would do him little good, or even if he consumes the product, it may form a very insignificant part of his expenditure and so the fall in prices will be only an insignificant saving, *e. g.*, cheap stockings would not give much consolation to the woman who has lost her employment of knitting stockings. In order that the compensation be a real one, machinery shall have to be introduced simultaneously in all branches of production, so that the consequent fall in prices be general and simultaneous.

(2) As regards the second argument, it is certain that this is by no means always certain. Whenever a commodity satisfies only a limited want (*e. g.*, coffins); and whenever one industry is bound with another (*e. g.*, casks and wine), a fall in price has little effect upon the amount sold.

Secondly, even admitting that reduced prices would increase production, it would require long time to do it. The process would take time. What would the labourer do in the meantime?

3 + 4. With regard to the third and fourth arguments, it should be asked when and where shall the combination of labour and capital take place? Perhaps in few years; perhaps at the other end of the world. The consumer, possibly, will use his saving to help dig a canal at Panama or build a railroad in China. Unfortunately the workman cannot so easily be moved.

5. **Localization of Industry.**—The phrase means the concentration of specialized industries in particular localities. It is remarkable how in the modern world certain industries come to be allocated to certain districts, how certain branches of manufacture seem to fix themselves in certain localities. For example, in England the iron trade was always carried on where timber was plentiful. Now, of course, the iron industry is always carried on where coal is plentiful.

A. The origin of such industries.

(i) Physical causes, *e. g.*, climatic conditions, as in the case of Lancashire cotton industry. The soil is moist and favourable to cotton. The qualities of the soil, such as the plentiful supply of raw materials; the existence of mines and quarries in the neighbourhood; or the place being within easy access by land or water, also constitute causes of localization. The iron industries of Bengal is a good example.

(ii) Patronage of court or the favour of the rich also determines the case. For example, Dacca was famous for muslins, Agra, Delhi &c.

B. The advantages of localized industries.

(i) Skill becomes hereditary; children learn the intricacies of the trade almost unconsciously. Mysteries remain no mysteries to those around the neighbourhood.

(ii) Subsidiary industries grow up; *e. g.*, in Lancashire the manufacture of textile machinery has been localized as a direct consequence of the cotton manufacture which is localized there.

(iii) The use of highly specialized machinery of a costly and delicate kind which can only be used where there is a number of factories. Once an industry is localized the division of labour can proceed thoroughly, and the large number of people following the industries can be divided into many large bodies, each following a section of the craft. It would pay them to use specialized machinery.

(iv) There grows up a local market for skill. If a man wants to start an iron workshop, he can find good workers in such districts, while men, seeking employment, would go to places where they hope to find good market for their skill.

(v) The transport trades soon come to be important. The facility of transport is though one of the causes of localization, such as cotton trade just behind Bombay, etc.

even if the conveniences of transport are not obvious, they soon come to be developed.

(vi) The banking system is accommodated to it. If, for example, a man desires to borrow money for cotton spinning in India, he would not go to Allahabad, where cotton spinning is not carried on, but to Bombay where bankers understand the exact kind of risk involved.

C. *Disadvantages*:—

(i) It makes too great a demand for one kind of labour: For instance, a district entirely devoted to iron works does not give sufficient openings for the labour of women and children.

(ii) The whole of the population is seriously inconvenienced if there be a depression in that kind of industry.

NOTE:—The remedy is to foster other trades so that failure of one may be mitigated by prosperity in others.

6. The Principle of Substitution.—In considering the question of production it is always seen that people replace labour with machinery. It is because they gain their end relatively cheaper. They always substitute more economical method of producing a commodity for the less economical. It is not the case only with labour and machinery. The producers are always weighing the advantages of one method of production against another, and constantly attempting to strike a balance. They consider the relative advantages of the human agent and the mechanical agent, sometimes substituting machinery for man, sometimes man for machinery. Sometimes they substitute one class of machinery with another and sometimes one class of labour with another. The principle may be simply stated thus:—

Producers tend to substitute those methods or agents of production which are cheaper relatively to their efficiency for those which are less cheap relatively to their efficiency, i. e., after the expenses of using the method or the agent have been paid, the net product remaining is larger.

7. **Companies.**—"Where a number of persons is incorporated into a company, either under Act of Parliament, or Charter from the crown or by registration under the Companies Act, the liability of members being either limited or unlimited, it is called a company." There are two broad classes of such companies.

A. Unlimited Liability Company.—The idea of an unlimited liability company is that various persons subscribe their capital to a venture, whether commercial or industrial; and because they very largely surrender the control of their capital and risk losing it, they are entitled to a share in the proceeds of the venture. In return for a share in the risk, they receive a share in the profits. The chief feature of an unlimited liability company is that in addition to standing to lose the capital they subscribe, the members of such a company stand to lose all they possess to liquidate the debts of such company, if it happen to fail.

NOTE.—The great disadvantage of such a company is that it clearly limits commercial activities; for men would not invest their money in a venture if by the act of investment they stand to lose all they possess.

B. A. Joint Stock Company of Limited Liability.

I. The idea of a limited liability company is just the same as that of the above, only in case of failure, in this company, the members risk to lose their capital only, which they subscribe to it. In other particulars it is quite similar to the above mentioned companies. They are also formed by stated contributions, their shares are transferable and the management is carried on by officials of the company called the Directors, to the exclusion of individual share-holders as such.

II. The advantages:—

1. They can enter on undertakings beyond the scope of private capitals *e. g.*, Railways, Docks &c.

2. They can enter on undertakings, which though not absolutely beyond the scope of private enterprise are yet inconvenient to it.

3. They present a greater security as the possible liability is well spread out.

4. They are very much more convenient to the general public, as money is not concentrated too much in one hand. Besides, individual share-holders can sell out if they desire.

5. They serve to collect, to sweep up small capital sums and to devote it to more useful work than it would otherwise engage in.

6. They afford numerous opportunities for employment with a fixed income *e. g.*, as clerks or managers in a company.

7. They will facilitate the introduction of improvements and inventions.

8. They afford better opportunity to men of real talents.

9. Their further growth would prove very beneficial as regards the relations between employers and workmen.

III. Disadvantages:—

1. Absence of adequate knowledge of the business on the part of the share holders.

2. The directors and paid managers are not directly interested in its success.

3. The failure of a company does not affect the mercantile standing of any person and there may be more temptation, therefore, to enter on risky enterprise.

4. Joint stock companies favour the creation of large scale production and render the existence of small firms very difficult. The profits of private traders would be diminished.

5. The publication of accounts, annually or half yearly, though useful, serves to clearly give out to rival firms how the firm stands and that is not desirable.

NOTE—In recent times, there has been a marvellous growth of such companies, in India and elsewhere.

8. **Law of Increasing Returns.**—In agricultural production, the Law of Diminishing Returns operates, by which additional doses of labour and capital yield a proportionately diminished return. But in industry and commerce there is a different law. It is called the Law of Increasing Returns. Production on a large scale and the division of labour affect economies in production, which make additional doses of labour and capital yield proportionately increased produce. The law may be simply stated thus:—"An increase of capital and labour leads generally to an improved organization which increases the efficiency of the work of capital and labour." That is to say, an increase to the amount of labour and capital applied to an industry so increases the economies which a firm can introduce, that it leads to an increase of output more than proportionately great *e. g.*, it is cheaper to produce a million than a thousand bicycles.

9. **The Law of Constant Returns.**—In certain industries the law of increasing returns and diminishing returns neutralize each other. Then the law of constant returns may be said to operate.

Thus in the earliest stages of certain manufactures, the chief thing may be the raising of raw produce ; it may be wholly agricultural, *e. g.*, the cotton industry. Later again, in working up the raw material, the work may be wholly industrial. Throughout the whole process from cotton seed to finished product, the operation of two other laws may balance and the law of constant returns may operate. It may be stated thus:—"In certain industries the law of diminishing returns and the law of increasing returns balance each other and then the law of constant returns is said to operate." For example, wooden plates carved by hand.

PART III.

CONSUMPTION.

The Consumption of wealth means the putting of it to that use for which it is desired. Consumption is that process by which the utility of wealth for any particular purpose is consumed. It involves destruction of utility. A commodity is consumed when it is applied to a definite use. The commodity itself need not be destroyed, though it generally is, *e. g.*, a sheet of cloth when it is torn and cut for a suit is consumed. Generally, the use of wealth implies loss of substance and change of form.

Consumption is the end, the aim of production. It is just because a man has wants that he employs himself in production. If he had no wants, the supposition is that he would not work, because his work could have no end. Under modern conditions, a man seems to be working merely to satisfy the wants of others ; but he does so because he knows that if he does not create utilities for other people to consume, he will be in no position to demand the utilities which he requires. It is want that gives impetus to production.

It becomes necessary, therefore, to study "Wants" first in the department of consumption.

I. Wants.

1. *Definition* :—The word "want" in the economic sense means "a man's effective desire" for a commodity. Now what is this effective desire ? The phrase does not merely mean that a man wishes to possess something. It means that he desires to get it, and his desire is backed by willingness to pay a price for it. The intensity of a man's want is measured by the price that he is willing to pay for the commodity. For example, a starving man has an intense desire for food, but his demand amounts to nothing unless he has the means (money) to purchase what he wants. Economics is really the science of financial relations. It deals with acts and motives capable

of money-measurement. Hence it takes no account of a desire by itself unless that desire is backed by the power to purchase. As to the measurement of the intensity of a desire, suppose a starving man coming to the baker's shop. Suppose, again, that the baker has sold all his loaves of bread except two which he reserved for himself. The amount of money that starving man would pay to the baker to purchase the loaves of bread, rather than go without it, would determine the intensity of his desire. Suppose, again, that he pays rupees ten for the two loaves and the baker sells them. These ten rupees the baker spends in purchasing a new set of clothes. The intensity of the desire for bread would be greater in the starving man, and less in the baker than the intensity of the desire for a new suit. When hungry, it may be advantageous for the baker not to sell the two loaves of bread that he reserved for himself; but when he decidedly purchased a new set of clothes in preference to the two loaves of bread, it means, economically that his *want* was for the new set and not for bread. We should distinguish clearly between what is advantageous for a man and what is 'economic want' of a man.

2. *Certain characteristics of human wants.* Human wants have several characteristics :—

(i) *They are unlimited in number.* This feature is the main spring of civilization. To have many wants and to know how to satisfy them well is the chief mark of civilization. Nations are doomed if they are easily satisfied. But is this unlimited multiplication of wants commendable? With the satisfaction of every want another want takes its place; therefore it is best to replace these wants by nobler ones. If we simply give them up without filling their place, that will mean the retrogression of social life toward the animal state.

(ii) *Wants are limited in intensity.* This proposition is most important. A want decreases in intensity up to the point of satiety and then it is extinguished and re-

placed by disgust or even suffering. It is torture to suffer thirst; but it was formerly also torture to be compelled to undergo the "watering operation," and to absorb excessive quantity of water.

(iii) *Wants are competitive.* One want can often be developed only at the expense of other wants. Progress consists in replacing inferior wants by higher wants.

(iv) *Wants are complementary;* they form groups. The want of food is allied, in civilized societies, with the want of tables, chairs, table cloths, knives, forks etc.

(v) Wants, even acquired or artificial wants, tend to become a matter of habit. They become our "second nature."

II. Interdependence with activities.

The interdependence of wants with activities is a very interesting phenomenon. We have seen that man produces in order to consume. Under the above head we learn that wants and activities depend upon each other. Wants produce activities. We build a house because we want to consume it, to live in it. Activities, on the other hand, also give rise to fresh wants. When we take part, for example, in different games we want uniform dress also.

Roughly speaking, we may divide wants under three heads :—

1. *Natural wants.* These are the wants even of a primitive man. They are natural to all. Every body wants food. Every body wants clothing. Every body wants a dwelling place to live in. These are the wants which cannot be satisfied unless a man works. These primary wants lead to activities.

2. *Wants produced by activities.* The above are the wants which can soon be satisfied but there are another kind of wants which spring out as civilization advances. With the developement of progress, men engage in social, martial, political, intellectual, athletic, religious and other activities. These activities lead to fresh

wants. People form armies and they require different uniforms. Professors and pleaders in these days wear gowns when they go for their professional work. High dignitaries in church have their own ecclesiastical robes.

3. *Wants created by fashion and custom.* "Custom and fashion may be described as that which is prescribed by public opinion as being necessary or desirable for a people or class &c., custom being applied to the more permanent, fashion to the more temporary requirements prescribed." About these wants little is needed to be said. A very large number of wants of today are due to fashion and custom. Indians use neckties &c., because they have been prescribed by public opinion as the fashion of the day. Cigarette smoking has also, unfortunately, become a fashion. But it must be remembered here that some wants, acquired or artificial, tend to become a matter of habit. They become our second nature. The habit of cigarette-smoking, once acquired as a matter of fashion, soon becomes our second nature. After a time we do not smoke because it is a fashion to smoke, but because we like smoking for its own sake, because we have become addicted to the vicious habit.

III. The Law of Diminishing utility.

(a) *The Law.* We have learnt that one of many characteristics of human wants is that they are limited in intensity; and the intensity is measured by the price that a man is willing to pay for a commodity. The utility of a commodity to a man is not infinite. It decreases with every fresh supply of the commodity that he obtains. The more of a commodity a man has, the less he wants the more of it. Suppose a man is in danger of starvation. A loaf of bread is then of infinite wealth to him. He would exchange all that he possesses to obtain it. Having eaten the first loaf, the danger of starvation is removed. Yet he is hungry, and may require another loaf. But he would not pay as much as for the first, though he may pay a great deal. For the third loaf, the demand is

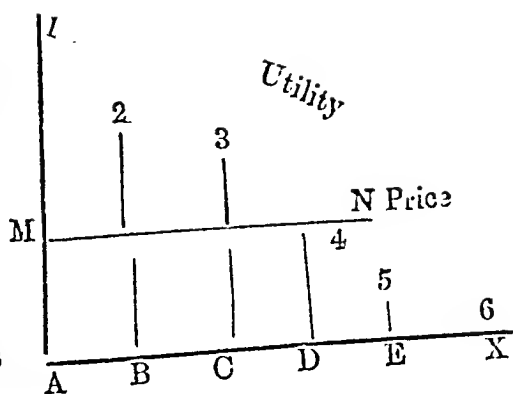
much smaller, and he would pay still less than he paid for the second. For the fourth, he would probably offer nothing. With every bite he takes, his demand for the next bite diminishes, because his wants are on their way of being satisfied. It is in this connection that the law of diminishing utility is spoken of.

Generally speaking, the law states that with each additional dose consumed the demand for the next dose, the first unconsumed dose, diminishes; or, "the larger the amount of a thing that a person has, the less will, *other things being equal*, be the price which he will pay for a little more of it, in other words, the less will be his marginal demand for it." *Other things being equal*—for instance, if his income be suddenly increased, he would be likely to buy more of a thing.

This law is very important. Its influence upon the theory of value is very great. For a man only pays for the whole of what he purchases just what he pays for the last amount, *i. e.*, for the dose he is just induced to purchase. Hence if he buys ten doses of any thing, the price he pays for the whole is ten multiplied by the amount he pays for the marginal dose.

Note—That part of the commodity which a man is just willing to buy considering that even that last portion of the commodity would pay him to purchase, is called his Marginal Purchase; and the utility of his marginal purchase is called Marginal Utility. For example, the starving man finds that the third loaf of bread, if he paid the price of it, would still do good to him, while it is not to his advantage to pay the price of the fourth loaf and to eat it. The utility of the fourth loaf is smaller than the utility of the metallic money that he would pay in price for it. The third loaf then, which he is just induced to purchase is his marginal purchase, and its utility the marginal utility. Suppose that he is willing to pay Rs. 4 for the first loaf, Rs. 3 for the second and Rs. 2 for the third, the price that he would pay for the three loaves will be six rupees, according to the law of value.

In this figure, AX represents the supply of the loaves of bread, and the lines A1, B2, C3, &c., indicate the utility of each successive loaf of bread for a given consumer. MN is the cost line, and the



part of each line A1, B2, &c., which fall below MN indicates the cost of each loaf. If these loaves cost absolutely nothing the consumer may consume 5 loaves; but in view of the fact that they cost the amount represented by AM, he will purchase only three. The cost of the fourth loaf is greater than the utility of the money which would have to be paid for it. The point of marginal utility comes after the third loaf, but before the fourth. It would not pay him to purchase the fourth loaf.

(b) *The Consumer's Surplus.*—From the above it is clear, that the price he offers for the three loaves that he consumes is determined by the price he offers for his marginal purchases. The price of a commodity of the same economic quality in the same economic market is one and the same. Hence prices for all its equal portions would be the same. But on every amount above the marginal amount, though he is willing to pay something more, the market rate of the commodity allows him not to pay, and he enjoys this surplus. The benefit, which a person gets from purchasing at a low price, things which he would rather pay a high price for, than go without, is called his *consumer's surplus*.

We can divide consumer's surplus into two classes :—

(1) *General consumer's surplus* or the consumer's surplus which all enjoy, because they receive all they purchase at the price they would be willing to offer for the marginal amount.

(2) *Special consumer's surplus* which an individual receives, because he has a particular desire for one class of goods, but gets them for the marginal price of the least keen consumer. Suppose that a man is very fond of grapes. He might be willing to pay two rupees a seer. But owing to the circumstances surrounding the marginal demand of other people, he gets it for twelve annas only. Hence on every seer of grapes that he consumes, he enjoys a consumer's surplus roughly measured by one rupee and four annas.

IV.—Elasticity of demand.

We have learnt that a man's desire for a thing diminishes with every increase in his supply of that commodity—other things being equal. But this decrease may be slow or rapid. If the diminution be slow, the price that he will be ready to pay for that commodity will not decrease greatly because his supply of it has been increased. A small decrease in the price of it would cause a comparatively large increase in his purchases. But if the diminution of utility for a commodity is rapid a small fall in the price will cause only a very small increase in his demand. In the former case we can say that the elasticity of his wants is great. In the latter, it is small. If a fall in price from say 2 rupees to 1 rupee per seer of mangoes would much increase his purchases, then a rise from one rupee to two rupees per seer would much diminish them; when the demand is elastic for a fall in price, it is elastic also for the opposite rise.

What is true of the individual is also true of a whole market. We may therefore generally learn that the "*elasticity of demand*" in a market is great or small according

as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price."

2. *General Statements about E. D.*—About the elasticity of wants, some general statements, in the form of laws, may be made. But it is necessary to consider the elasticity of demand for a particular commodity with reference to one class of society at a time. For example, the poor man never tastes whiskies, but the very rich man may drink as much of it as he has a fancy for, without giving himself a thought of its cost. It matters very little for menial classes whether the price of whiskies be Rs. 2/14 per bottle or Rs. 3/14/- per bottle. In both cases, their demand for it will remain nil. Therefore it is necessary to speak of the elasticity of demand of a thing considering always one class of society at a time.

The current prices of wallfruit, of the better kinds of fish and other moderately expensive luxuries are such that with a small fall in prices, their demand of the middle classes increases much. Their demand of the middle classes is elastic. But the demand for these things of the rich classes is much less elastic, because it is already nearly satiated, and also of the working classes it is much less elastic because the price is still too high.

Now we should learn that :—

1. *The demand is very elastic for those things which are capable of being applied to many different uses.* Water for instance is needed first as food, then for cooking, then for washings of various kinds and so on. A very small rise in price will be followed by a great reduction in the demand for water, since its use for some of these purposes will be discontinued, *e. g.*, for watering gardens.

2. *The demand for necessaries is not elastic.*—For example, if the price of bread fell considerably, there is no reason for assuming that the demand would rise very much ; nor, again, if the price rose to the double of what

it is, would the demand fall off considerably. Because people must have bread and would limit their consumption in other direction in order to procure it ; they would in most cases prefer to go without every thing rather than bread, which is the prime necessity of life. That is to say, no matter whether the price is high or low, the demand is more or less constant. Rises or falls in price leave the demand substantially ineffective, *i. e.*, the demand for such commodities is inelastic.

PART IV.

DISTRIBUTION.

Introduction.—Each year in any given country there is a stream of wealth produced, which is known as the National Dividend. This is the joint product of the work of land, labour, capital, and organization. The fact that various men—landowner, capitalist, workmen and employers—contribute to swell the total of the commodities produced in a society, gives us our problem of distribution. We have to see how it is that any man who contributes something to the total of commodities draws something from the National Income. We have to see, moreover, what principles, if any, regulate the share which falls to each. We have to discover how the landowner, whose land is utilized, the saver (the capitalist) whose capital is utilized; the workman, whose labour is employed, and the entrepreneur, who directs industry and labour, who exercises his mind or body or both, is remunerated and encouraged to continue in his calling.

CHAPTER I.

RENT.

Definition.—"The income derived from the ownership of land and other free gifts of nature is called rent."
—Marshall.

"Rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of soil"—Ricardo.

I.—The origin of Rent.—Originally, says Ricardo, as men were obliged to cultivate only a small section of land, they chose the best plots. Still, despite the fertility of these plots, their cultivation did not yield a greater income than could have been obtained from any other employment of labour and capital. But the increase of population necessitates an increase of production; and when all the land of the first quality has been appropriated,

less fertile land must be put under cultivation. This will involve extra expenses in the cost of production and the cultivator of this inferior land cannot sell the produce for less than the cost of production. The cultivators of the first class land too will not sell their produce at a lower price than their neighbours. There is always one price for equal amounts of the commodities of the same economic quality. Thus there remains a gain for the cultivators of the first class land, and this is precisely what is called Rent.

At a latter stage, as population continues to grow and to require an increased supply of the means of subsistence, men are obliged to cultivate lands of even inferior quality. This "order of cultivation" may go on indefinitely, always causing a rise in the price of food, to the detriment of consumers, and an increase in rent, to the benefit of landlords.

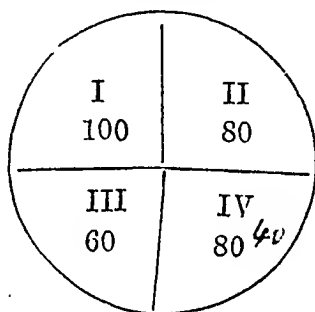
In Ricardo's theory of rent we must take it for granted that there is always some land for which no rent is paid. This is the land, however, that plays a decisive part in the determination of rent. The income of all other lands is due not precisely to their fertility but to their *relative* fertility, i. e., to the comparative barrenness of competing lands. The owner of a fertile plot of land enjoys a privileged position which does not consist in being able to sell above the market price but in ability to produce cheaper than the market price. In other words, prices are not high because rent is paid, but rent is paid because prices are high. Rent is not the *cause* but the *effect* of the prices.

For the sake of greater clearness and simplicity, it seems best to study rent under two different sets of circumstances, though the same laws really hold good in both.

A. Rent in extensive farming:—

(i) *Origin of Rent.* A colony settles in an uninhabited country. There is more land than the colonists require, so that nobody has to pay any rent for the use of it. But

this state of things will change as population increases. Suppose that there are four qualities of land. The best quality may be called number 1. At first none but this plot is cultivated. Suppose it yields 100 bushels of grain. As the population increases, need will arise to bring the plot No. II also under cultivation. But this tract yields only 80 bushels. From the moment that people have begun to cultivate No. II, No. 1 yields rent and the amount of it can be accurately indicated. At this point, it is a matter of indifference for the cultivator whether he gets the plot No. I rent-free, or he pays a rent of 20 measures of wheat for land No. II. Again, the population increasing still further, it becomes necessary to cultivate the plot No. III which yields 60 bushels



only; and then the plot No. I would yield a rent of the value of 40 bushels of wheat and the tract No. II would yield a rent of 20 bushels of wheat. In the same manner, if the fourth plot is also brought under cultivation, No. I would yield 60 bushels, II, 40 bushels, III, 20 bushels and the plot No. IV would remain on the margin of cultivation—i. e., it would only just pay the cultivator to till this ground, without yielding any rent for the land-lord. Yet it is necessary to bring it under cultivation to supply food stuffs to the growing population. It would be this land, the land on the margin of cultivation, which would determine the price of wheat; for the cultivator under the greatest disadvantage must also get his remuneration for the labour and capital that he applies to the land on the margin to supply the growing need for wheat.

(ii) *The Law of Rent*:—Therefore the rent which a given area can yield is the difference between the produce of that land and the produce of an equal area of the more inferior land which it has been found necessary to bring under cultivation, at the same time, for the same market.

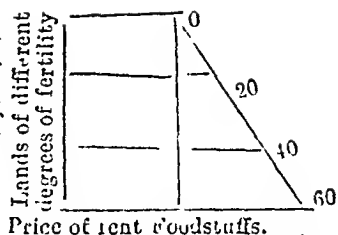
From the above we learn the following:—

(1) Rent arises from the operation of the law of Diminishing Returns, since were it not for this law, the best quality land would continue to be more and more intensely cultivated.

(2) Rent arises from the niggardliness of nature and not from her generosity. It is due to the comparative barrenness of competing lands. All the different tracts of land are of different degrees of fertility or advantageousness. They are not *all equally fertile*. Rent is under such circumstances remuneration for the use of natural advantages possessed by certain pieces of land, and which are *not* endowed to others.

(3) Rent does not enter into the cost of production.—Suppose that all the Zamindars allow their tenants to use their land free of rent. Such an act would not cause any diminution in the consumption of and demand for food. The population would require the same quantity of agricultural produce as before ; and it would be necessary to cultivate the same area of land. The land on the margin of cultivation, *i. e.*, the land which just covered the expenses of production without yielding any rent, would still be required to be brought under cultivation. *This* land must take a decisive part in the determination of price ; for if the prices were not determined by the expenses of production on this land, its cultivator would suffer loss and cease to cultivate it. If the cultivator of lands No. II, III & IV sell their produces cheaper, because now they have to pay no rent, people would purchase from them and not from the tenant occupying land No. IV who raises his crop at the greatest disadvantage and hence can sell only on higher prices. In this case, the latter would suffer loss and cease to till his land. But there being no diminution in the demand for agricultural produce, he also grows his crop. The advantage from remission of rent would therefore go only to the cultivator and would not cheapen the price of foodstuffs. From this theory the

interesting conclusion is drawn that one might confiscate the entire rent of land by taxation without affecting the price of cereals.



✓ B. Rent in Intensive farming:— *See Marshall's*

(a) *The origin of Rent.*—Suppose that instead of bringing fresh lands under cultivation, people apply more and more doses of labour and capital to the same land and go on producing food stuffs from it. Rent in this case would arise from the fact that Law of Diminishing Returns operates. We know that in the cultivation of land a point is reached when every additional dose of labour and capital brings out a proportionately diminished return. Suppose that a certain piece of land, if ploughed once, yields 100 bushels of wheat, if twice 80 only and if thrice 60 only: we may see that each of these three applications costs an equal amount, but the return to the second is less than to the first and that to the third is less than the second and so on. Equal doses of labour and capital, i. e., equal amounts of expenses of production, produce different—diminished—returns. Now, in an economic market, there is only one price for a commodity of the same economic quality. Hence all this produce—~~240~~ 100 bushels of wheat—will have the same market value and will be sold at one and the same price. This price will be determined by the cost of production of the last 60 bushels of wheat which are produced under the least favourable circumstances, by the latest or the marginal application of labour and capital. Thus on all earlier doses of labour and capital, there will be a surplus product remaining over after the cost of that dose, or in other words, the cost of production, has been paid. This surplus is rent.

(b) *The Law of Rent*:—Therefore the rent in this case is determined by the difference in productiveness

between the dose of labour and capital in question *i. e.*, (the *first* ploughing) and the last dose which only just pays the cultivator to apply it (here, for instance, the *third* ploughing).

II.—*Other determinants of Rent.* Besides the above there is another consideration also which plays an important part in determining rent. Some lands are situated near the market, so that it is very easy to take the produce to the market for sale. Other areas are at a distance ; in this case it involves expenses of transportation. People would cultivate those lands first which are nearest to the market and, as necessity arises, they would bring, afterwards, those lands under cultivation which are at a greater distance from the market place. In this case too pieces of the produce will be determined by the cost of production (including the transportation expenses) of that peasant who ploughs a field at the greatest distance from the market.

III.—*Other Rents.*

(a) *Rent of building lands*,—depends mainly on situation and since competition is very active, the rent of manufacturing and tradebuilding lands conforms closely to the Ricardian theory. Suppose that a manufacturer wants to take a piece of land for building purposes. Suppose also that there are four such pieces, the first being very near the central market of the city, the second at one mile's distance from it, the third in the outskirts and the fourth in an out of the way place. It is natural that the manufacturer would be ready to pay a good deal rather than go without the first piece. The advantageousness which the first piece commands over other pieces determines its rent.

(b) *Rent of Water privileges* :—The same principle will hold good in determining the rent that can be charged for a supply of water, for example a river required for fishing for driving a mill, for ordinary use in a town or for irrigation. The rent would be determined by the volume and quality of water, the convenience of

its application to the purpose for which it is wanted, and its proximity to the place where it is required. Thus there can be no-rent, low rent, and high rent privileges, rent being measured by the degree of productiveness.

(c) *Rent of Mines*—is not determined wholly by the Ricardian formula. The Ricardian theory applies to the *indestructible* powers of the soil; but a mine is sure to be exhausted in use and therefore in determining its rent compensation for its ultimate exhaustion must also be calculated. Otherwise, the extent of the mineral, the depth of working and the proximity to a market govern the rent of mines. Thus there are no-rent mines from which the rent of others is measured.

(d) *Rent of Pastures* :—Ricardian theory takes it for granted that a body of no-rent arable lands exists, from which the rents of better lands are measured. This is the case to a certain extent, but usually no-rent arable lands become pastures, therefore in many places no rent pasture lands form the base line for ascertaining rents; then come better pastures and parallel with them arable lands of moderate fertility paying an appreciable rent. Thus the rent of pastures is determined by the same principle as that which applies to arable lands.

(e) *The rent of Wood Lots*—in old countries where they are let and not sold, will also be determined by the Ricardian formula.

(f) *The Rent of Buildings and of Permanent Improvements on Land*,—is mainly interest on capital, and is not governed by the economic law of rent.

IV.—*Unearned Increment of Land* :—Unearned Increment means “that increase in the value of anything subject to a natural monopoly which is due, not to the expenditure of capital, labour or skill by the proprietor, but to the general progress of society resulting in the increased demand for that thing.”

We must bear in mind that land is a wealth of its own kind and has three characteristics which no other wealth possesses in the same degree,

These are :—

- (1) It provides for the satisfaction of human wants that are essential and permanent.
- (2) It is limited in quantity.
- (3) It lasts for ever.

In view of these facts we can easily understand why the value of the land and of its products increase constantly,—at least in a progressive society,—and how almost all the forces of economic and social progress contribute to its increase.

The growth of population is the principal cause of increasing rent, because the more people there are, the greater should be the quantity of food that the land must produce for them, and the wider the area they will require to live upon. But the general accumulation of wealth, the building of highways and railroads, the rise of great cities, and even the development of public order and safety, also inevitably contribute to increase that surplus value of land, which English Economists designate by the significant name of *Unearned Increment*.

The question was, long ago, raised by J. S. Mill and has been revived in our times whether or not it is right that this unearned increment should go to the landlord. People are of opinion that the increment in rent due to the progress of society should go to the society and not to the landlord. So proposals have been made for transferring to the state the unearned increment. But there are good many difficulties in carrying out these proposals into practice.

V.—Nationalization of Land:—Proposals have been made to transfer the proprietary rights of landlord to the state. This is what is known by Nationalization of Land,

It is thought that the Government is the real owner of the land of the country and the landlords are a mere 'middle man,' not entitled to anything beyond a small salary of a tax collector. Not only the unearned increment but the whole value of land is claimed by the Government according to this theory.

Plans for reformation.—Various plans have been suggested for reforming the institution of property in land in the interests of society as a whole. Two of them are most important.

(i) The Government should buy the land and lease it to individuals, for 50, 70 or 99 years, for cultivation, in much the same manner that it grants franchises to railroad companies. After this period had elapsed, the Government could lease the land for a new period. In this way the government would receive all the unearned increment and collect an enormous revenue that would ultimately permit the abolition of all taxes.

(ii) *Single Tax system.* This system was advocated by the two Mills and has acquired wide-spread celebrity since its advocacy by Henry George. It consists simply in levying an increasing tax on land values, so as to absorb the whole unearned increment. Mr. George holds that a single tax would yield more than enough to support the government and would make all other taxation unnecessary.

CHAPTER 2.

PROFITS.

The share of the *entrepreneur* is called Profits. Originally the word Profits meant any sort of gain to obtain which some expense or risk must be incurred; but in practical life there are three chief meanings for which it is used.

I.—Meaning of Profits :—

(a) the total revenue gained by a man, employing his own capital and himself performing the duties of management and supervision.

(b) the gains of a joint stock company or private enterprise, in which paid managers do the work of supervision and organization.

(c) The net gain of an entrepreneur, employing no capital of his own.

II.—Nature of Profits.—

Three explanations of the part played by the entrepreneur and of the essential nature of profits may be distinguished :—

(1) English economists have usually regarded the entrepreneur and the capitalist as identical, and have designated both by the latter name. They have regarded profits as a *capitalistic income*, analogous to interest, but fixed at a somewhat higher level.

It must be admitted that this way of looking at things seems quite in conformity with facts. In practice the rate of profits goes hand in hand with the rate of interest, and is calculated in the same way, *viz.*, as a certain "percent" of the capital employed. This interpretation, however, must be abandoned. The part of the entrepreneur and that of the capitalist are distinct in theory, and sometimes separate in practice.

(2) French economists, on the other hand, clearly separated these two parts. In their opinion the predominant characteristic of the entrepreneur is the performance of a certain kind of labour. Profits are therefore *remuneration of labour*, but of a particular kind of labour, different from and superior to manual labour and consisting of the following elements :—

(a) *Invention*.—The truly productive act is *thought* the conception of *ideas*. The entrepreneur must have business ideas. He must discover what will please the public, and must, so to speak, invent new wants.

(b) *Superintendence*.—Collective labour is more productive than isolated labour, but there must be somebody to divide the work and give labourers their proper place.

(c) *Commercial Speculation*.—It is no difficult matter to produce goods; the great problem is to sell them. The art of buying and selling on the most favourable terms is one of the principal accomplishments of the successful entrepreneur.

There is much truth in this second explanation yet, it does not clearly set forth the essential nature of profits. The function of the entrepreneur may be performed by hired employees. As a matter of fact, all large enterprises organized as "companies" employ men to perform the several tasks of the so called entrepreneur.

(3) A great many economists, finally, consider the entrepreneur as possessing a monopoly. Profits therefore are a *monopolistic income* or so called monopoly surplus. This income may result from personal abilities, or from certain advantages of situation or opportunity.

This theory is most consistent with facts. It explains why the entrepreneur generally happens to be a *capita list* also. It also explains why exceptional personal qualities may be a source of large profits and of great wealth.

III.—*The Laws which determine Profits*.—If we let V represent the value of the finished product, W the wages, I the interest he must pay if he has borrowed all or part of his capital, then P the profit would be determined by this simple formula.

$$P = V - (W + I)$$

But several elements are still missing from this formula. Practically the entrepreneur often has to rent land. Why should not cost of production include this rent? The economists of the English schools answer that the rent of land is never a part of the cost of production, because it is the cost of production which *determines* rent. But this doctrine is too absolute. In all cases where rent is the price of a genuine monopoly—such as

buildings and lands situated in cities &c.,—it is certainly part of the cost, and if the entrepreneur has to pay rent for such land, that rent should form part of the cost of production. Again, the entrepreneur generally supplies all or part of the capital and the labour of superintendence also. The interest on this capital and wages for this labour of organization should also be reckoned a part of the cost of production. What remains after deducting all these elements is profit.

IV.—Profits are a Species of the same Genus as Rent:—Profits form an exact analogy to rent. They are due to exceptional abilities or opportunities for the conduct of business, just as rent is due to exceptional fertility or situation of the rent lands.

Since that portion of the supply of manufactured goods, which is produced at the greatest cost or greatest disadvantage, determines price, and there is only one price for a commodity of one and the same economic quality in the same economic market, the conclusion is that those entrepreneurs who can produce the article more cheaply than those who produce it at the greatest disadvantage, must have a surplus which goes to them as profits.

Suppose in Agra the proprietor of one carpet factory has extra natural ability over others to produce carpets of the same quality with less labour and less expenditure on tools and raw material. The price of the carpets of the same economic quality would be determined by the cost of production of the factory which produces under greatest disadvantages, the proprietors of the former factory would, therefore, enjoy a surplus gain which is their Profit. Since the different employers possess different degrees of natural ability, the producer under greatest disadvantage would enjoy no profit and would be called "No—Profit Employer," from whom profits would be measured upwards. It is in this that profits are analogous to rent.

NOTE.—Rent differs from Profits in as much as Land is limited in amount while Employers are not,

V.—Profits do not enter into the cost of production of manufactured articles:—From the above it follows, quite logically, that Profits like Rent do not form part of the price of manufactured products. They are taken from that surplus revenue which an employer gains by possessing extra natural abilities which enable him to produce the same amount of a commodity of the same economic quality relatively cheaper than other producers.

VI.—Difference between Rent and Profits.

Profit differs from landrent for two other reasons also:—

(1) Because the monopoly due to land-rent always possesses a real, impersonal, and more or less permanent character, while profit is of a personal and temporary nature.

(2) Because land-rent arises either (as Ricardo thought) from the increase in the cost of production, or (what is more strictly true) from the increase of human wants; whereas profits, as we have just said, are generally due to a decreased cost of production in certain industries and establishments.

Although the *maximum* cost of production alone governs the rent of land, the minimum cost of production sooner or later regulates the rate of profit, because the monopolist will ultimately be ousted from privileged position by other entrepreneurs, and because, moreover, it is in his own interest to lower prices.

CHAPTER III.

INTEREST.

I.—Definition:—Interest is the *compensation paid for the use of capital*; it is the share of the finished product that goes to the capitalist as remuneration for the use of his capital.

It is usually said that interest is paid for the use of money. This is not really the case. What is borrowed is the capital obtained by means of the money. For example, if a man borrows Rs. 10,000 to purchase machinery for his factory what he really wants and what he really gets, is the machinery that he buys with the borrowed money.

II.—Theories :—The classical economists and their successors differ as to the nature of Interest. Various theories have been started to account for interest :—

(1) *The Productivity theory* :—This name is applied to the theories based on the familiar fact that a workman provided with capital can produce more or better products than without capital. This additional product “produced by capital” constitutes interest.

(2) *The Use theory*.—The theory asserts in brief that in capitalistic production there is a sacrifice, not only of the material substance of capital but also a sacrifice of the use of the capital during the period of production.

(3) *The Abstinence theory*.—Is based on the thought that if men postpone the present enjoyment of their wealth and devote the resources so spared to production, it is manifest that the resulting increase in product is very intimately connected with the saving which made possible the adoption of the more productive methods.

(4) *The Labour theory*.—This name includes a number of theories which agree in considering interest as the remuneration for labour performed by the capitalist.

(5) *The Exploitation theory*.—This celebrated theory, regards rent, interest, and profits as due to the exploitation of working men. As applied to interest, it may be stated as follows :—

The value of a commodity is measured by the quantity of labour required to produce it. Capital is not an original factor of production, but may be resolved into the labour that produced it. The whole product, therefore, belongs in equity to the labourer.

(6) *The sixth group of authors*.—Treats the problem of interest as primarily a problem of value, and regards the influence of *time*, in the estimation of values, as the fundamental cause of interest. “Present goods” says Boehm-Bawerk, “are as a rule worth more than future goods of like kind and number”

III.—The laws which determine interest.—As all kinds of capital are lent and borrowed in the form of money, they are on the same footing. It follows, then, that there is, at a given time, but one and the same rate of interest in the money market of a whole nation or even of the whole world. That rate of the *price of capital*, as is the case in all other questions of value, depends upon supply of and demand for capital.

Suppose, for instance, that a multimillionaire from abroad comes to India and invests his capital in this country. The supply of capital here will be increased which will, according to the law of supply, lower its price. Hence the rate of interest would be diminished. Suppose, on the other hand, that the supply remaining the same, there is an increase in the demand for capital for opening a large number of cotton mills and manufacturing factories of different kinds. The rate of interest in this case, according to the law of demand, would greatly rise.

Now we should consider this question of supply and demand in detail.

1. *The supply of capital.* Supply, in the economic sense is that amount of anything which is forthcoming at a certain price. The supply of capital depends on the following factors :—

- (a) On the nation's capacity for saving.
- (b) On the security afforded to investors.
- (c) On the existence of a large class of persons unable or unwilling to utilize their own capital in active business.

2. *The demand for capital.* Demand means, economically, the quantity of a given article which would be taken at a given price. The demand for capital is determined by its productivity, i. e., as long as there is any advantage in the employment of capital the demand for it will continue to increase. For example, in a shoe factory capital will be borrowed necessarily for raw material, for building and for certain necessary tools. For these the

entrepreneur must borrow whether the rate of interest be high or low. But it is perhaps less necessary to borrow capital for other things. For a certain machinery which costs Rs. 150 and brings a net return of Rs. 15%, capital will be employed if interest be lower than 10%, but will not be employed if the interest be more. Other capital will be on the margin of being employed; *e. g.*, a certain machine which costs Rs. 100 and brings in a net income of Rs. 3; if interest be 3%, it will be just worth while of the employer to use this machinery. Otherwise the principle of substitution may work and he may employ hand labourers to do the work of this machine.

We must however remember that the point beyond which the use of additional capital would not be advantageous has never been reached in the industrial life of any nation.

Capital will, of course, first seek those investments in which the returns are the greatest; whatever capital is not thus employed must turn to less and less productive uses. But there can not be different rates of interest. Naturally the rate of interest is determined by the return from the least productive use of capital—in other words, from the last increment of capital that is employed productively.

IV. Different Rates of interest at the same time in the same market.

There is only one price for a commodity of the same economic quality in the same market. How is it then that there are different rates of interest at the same time in the same market? How is it, for example, that if a capitalist takes Rupees 10,000 to the money market and invests it in 10 different sums of Rs. 1000 he gets a different rate of interest? The truth is that in what is called interest there are different elements. The varying rates of interest to be obtained on the same market arise partly from differences of risk and partly from imperfect competition due to want of accurate knowledge as to all the

circumstances of a loan. The matter becomes much more clear when we distinguish *Net Interest* from *Gross Interest*.

(1) *Net Interest* is the amount paid to recompense marginal waiting. It is the earnings of capital; and the rate of this kind of interest will always tend to equality.

(2) *Gross Interest* is the interest usually paid on loans and includes payments for other things:—

(a) Supervision by the capitalist. The capitalist always has to devote a certain amount of time and attention to the investment of his loan. In the case of money-lending, supervision often takes much time and trouble. This charge is introduced in the higher rate of interest.

(b) Payment for risk, which the lender runs of losing part or all of his capital. The greater the risk, the higher will be the compensation demanded.

Gross interest, therefore, includes net interest or Interest Proper, together with insurance against risk and the trouble of collection and supervision. Long time loans, usually command a lower rate than short time loans because with such loans the lender is saved the trouble of frequent re-investment.

CHAPTER IV.

WAGES.

I.—Definition.—Wages as defined by economists, mean the income received by a person in exchange for his labour. But this definition is not correct. The word “Wages” should be applied only to the remuneration for a particular kind of labour—labour performed under certain clearly defined conditions. It should be defined as the price of labour hired and employed by an *entrepreneur*.

Indeed, in every day speech, wages mean the pay of the labourer, that is to say, of the man who works for

an employer. The other kinds of remuneration for labour have different names. The income of professional men consists of *fees, retainers, honoraries, &c.* That of officials is called their *salary*. Although these persons live also by their personal labour, they do not sell their labour to an *entrepreneur*, but to their parents, clients, &c., or to a political community. The economic laws which determine the remuneration received by these persons are entirely different from those which regulate the wages of employees. We cannot, however, enter into the problem of the determination of all these incomes, but must confine ourselves to the most important of all, *i. e.*, wages.

Before taking up the problem of wages, two distinctions require to be drawn very clearly, *viz.*, that between the *real* and *nominal* wages, and that between the *real* and *nominal* cost of labour.

In the term *Nominal Wages* is included the present value of all money wages, regular or occasional, and perquisites and expectations, reckoned over a given period, say one year, in the currency of a given time and place. The term includes the ordinary weekly wage, whether time or piece; a fair estimate of special earnings; the money value of all payments in kind, whether in the shape of actual receipts or of reduced rent, or of facilities for cheap purchase of goods; and a suitable estimate for residence, board, or clothing &c., &c.

Real Wages. If the labourer received his wages in the commodity he had produced, he would have to sell it to buy other necessities. This would be a difficult matter. The worker therefore prefers to have money. The payment of money, however, must not blind us to the fact that what the labourer really works for is not money, but the things he wants. These are his real wages. Provided he gets more of them, it does not matter whether he gets more or less money. If the things he wants become cheaper, his wages are increased; if they become dearer, they are lessened. We may define real wages as "the remuneration of the labourer reckoned in the necessities.

comforts and luxuries of life." Walker points out that wages may apparently be the same and yet differ widely by reason of the following circumstances:—

1. Variations in the purchasing power of money.
2. The form of the payment, as when the board of the labour, the rent of the cottage, allowances of fuel &c., are added to the money wages of the labourer.
3. The greater opportunities in some avocations for extra earnings.
4. The greater regularity of employment in some avocations than others.
5. The longer duration of the capacity to labour in some avocations and countries, than in others.

From the standpoint of the labourer, therefore, real wages, not *nominal* or *money wages*, are of most importance. This, however, is not the sole aspect of the wages problem. From the standpoint of the employer *wages may be high*—not only nominally but really—and *yet labour may be cheap*. When we speak of cheap labour, we refer usually to labour that is poorly paid. But this is not strictly correct. "The cost of labour is high or low, according as the employer gets an ample or a scanty return for the wages he pays to the labourer, whether these be low or high." If a bootmaker receives \$ 2 a day and makes \$ 7 worth of boots, his labour costs less than that of the bootmaker who is paid only \$ 1 a day and makes only \$ 3 worth of boots.

II.—The Laws of Wages.—Laws of wages should formulate the general principles which determine the rate of payment for hired labour, and should indicate the causes of its rise or fall.

As, under present economic conditions, labour is simply a commodity that is sold by the wage earner and purchased by the employer, it is evident that its price must be determined by the same laws as those which govern the price of any merchandise. But the formula of demand

and supply, applied to problems of distribution, lacks scientific precision and completeness. Many economists have abandoned it as a law of wages, and endeavoured to discover a more accurate and satisfactory formula.

A. The celebrated Theories of Wages.—Three important wage theories have been suggested, each of which has attained considerable celebrity, and each of which has its advocates at the present time:—

I. The Wages Fund Theory.—For a long time this was the classical English theory of wages. It approaches most closely to the theory of demand and supply. The *supply* consists of the labourers who are in quest of work offering their services to earn a living. The *demand* consists of the capital which seeks investment. To employ capital productively is to supply work for labours. The ratio between this capital and the number of labourers determines the rate of wages. Take the circulating capital of a country which English economists call the wages fund. Then take the number of labourers. Divide the former quantity by the latter and the quotient is the average rate of wages.

It is evident that according to this theory a rise in wages is possible only in the two following cases:—

(a) If the wages-fund is increased; and the only way in which this can be done is by saving.

(b) If the labouring population is diminished. This can be done only by the labourers applying the principles expounded by Malthus, either by abstaining from marriage or by having few children.

This theory is certainly not encouraging for the future of the working classes. It is feared that the divisor will increase more rapidly than the dividend. Population increases spontaneously, but not capital.

Criticism.—Although the wages-fund theory is still held by a number of economists, it is generally discredited.

(a) The thought on which it is founded, *viz.*, that a certain definite amount of capital is necessary for employ-

ing labourers, is of interest only with regard to production, not with regard to distribution. To know whether an *entrepreneur* has the means to set labourers to work, is one thing; to know what share of the proceeds of the enterprise he will be able to yield to his employees, is quite another thing. The first of these matters depends upon what he possesses; the second depends upon what he produces.

(b) The apparent exactitude of this theory is illusory. When we examine it more closely it amounts to saying that the average rate of wages may be ascertained by dividing the total amount paid out as wages by the number of wage-earners. This is simple tautology. Even if it means that the larger the supply of capital in a country, the higher the wages, it is too self-evident a proposition to require any proof.

(c) We must inquire whence comes this circulating capital, this wages fund? Obviously, from the labour itself. Wages are taken immediately from capital, but the quantity drawn from it is added to it by the stream of products resulting from industry. It is the volume of products which sets limits to the amount of wages.

(d) Probably the most destructive criticism of the wages fund theory was that presented by Thornton, whose celebrated book "On Labour" led J. S. Mill, who had most skilfully elaborated the wage fund theory, to abandon it. Thornton maintains "that labourers, by combining, may exercise a monopoly influence and thus raise the rate of wages;" and if this be true, there can be no fixed wages fund; it "can only be an aggregate of smaller funds of the same kind." But is there any specific portion of any individual's capital which he must necessarily spend upon labour? The employer generally says; "I require so much labour; so much is the most I can pay for it, but I shall see for how much less, than the utmost I can afford to pay, I can get all the labour I require."

II. The Iron Law of Wages.—Lassalle declares that the price of labour, "like the price of all other merchandise is determined by the law of supply and demand. But what determines the average ratio of supply and demand? The necessary 'cost of production.' Thus it is the cost of production of labour which determines wages.

Now the cost of production of labour includes (a) the value of the goods necessary to support the workman and to maintain his productive powers (b) the amount necessary to replace this workman by another when he becomes unfit for work *i. e.*, the amount necessary for raising the number of children required by society.

Thus wages are necessarily determined by the minimum that is absolutely necessary for the support of the labourer and his family.

Criticism.—This theory is however abandoned today.

(1) If the theory means that the workman's wages can never rise above what he absolutely requires to live upon, it is much too pessimistic and manifestly contrary to facts. Why is the rate of wages not the same in all trades? Must an engraver or a skilled mechanic consume more foodstuffs than a stone-breaker or a street-cleaner? Why are wages higher in the United States than in England. Is there any physiological reason why an American should eat more than an Englishman—both belonging to the same race?

But this law is sometimes interpreted in a broader sense. It is sometimes taken to mean that the wages of labour are governed by the standard of living of the working class to which a man belongs and by the sum total of characteristic wants of his fellows. If we are agreed that this standard of living is in reality elastic and changeable according to race, climate and period, we should speak not of the "iron" law, but of the "golden" law of wages.

(2) According to this theory, the wages of the workman would not determine his manner of living, but, on the contrary, his manner of living would determine his wages. If so, who could be more fortunate than they? To in-

crease the wages, they have only to increase their expenses and standard of living.

(3) In reply to this theory it is objected that labourers would lower their standard of living rather than starve, specially when labourers with lower standard of living are abundantly available. Machinery, moreover, is constantly discharging labourers.

(4) This theory mistakes cause for effect. Wages are not high because the standard of living is high, but *vice versa*. To get better wages, a man must increase his productivity—that is to say, his usefulness to those who employ him.

III.—The Theories of the Productivity of Labour. According to this class of theories the value of an instrument of production depends on its productivity. The theory maintains that the workman receives as wages all that remains of the total product when interest, rent, and profits have been deducted. These three shares are strictly determined in their respective amounts, whereas the worker's share possesses the advantage of not being fixed. In his relation to the other factors of production, the wage worker may be compared to a residual claimant or legatee who takes what is left when the other heirs have received their stated shares of an estate.

This theory if sound, would be as encouraging as the first two are discouraging. Every thing that increases the worker's productivity will inevitably increase his wages.

Criticism :—

(a) Whereas the wages-fund theory was too rigidly pessimistic ; this doctrine is probably too optimistic.

(b) This theory, as well as the wages-fund theory, makes it appear impossible for labour organizations to improve the condition of the working classes. For if the labourer is a residual claimant, he is powerless to increase or decrease his share in distribution, except by an increase in his productivity.

(c) This theory is very little justified by facts. The productivity of labour although *does* influence the rate of wages by increasing the general wealth of a country; and whenever a particular kind of labour is more productive than others, wages *do* become higher, yet this theory leaves in the back ground one of the most essential factors of the problem, *viz*, the abundance or scarcity of labour, the effect of which is often preponderant.

IV.—The Final Utility theory of Wages.—According to this theory, the rate of wages is determined by the *marginal productivity of labour*. There is in every business enterprise a point, beyond which it will not pay the entrepreneur to hire more labourers. Now the net profits of any business are greatest when the number of labourers has reached the point where the last labourer still produces more additional value than he costs his employer. If the labour of the last man is the same as that of the others, it is evident that all labourers will receive the same wages, because different wages can not be paid for like labour. These wages, moreover, cannot be greater than the productivity of the last labourer employed. In other words, the wages received by the marginal labourer must determine the wages paid to all the other labourers of the same kind and the same ability.

NOTE.—The term last labourer must not be supposed to mean the last labourer actually employed, for all the workers may be hired at the same time. It would manifestly be absurd to pick out any particular labourer as the "*last* labourer" or the labourer who "*produces least*," yet, to all intents and purposes, there is—logically, not chronologically—such a "last labourer."

To conclude, there is probably not *one* determinant of wages, but *several*, operating with varying degrees of influence at different times and under different circumstances. All the forces that influence the value of merchandise also affect the value of manual labour. There are, moreover, other determinant influences peculiar to wages,—such as public opinion, threatened strikes, and above all the growing consciousness among workers of their rights and their social importance.

B.—The Formula of Demand and Supply.

The formula of demand and supply is the only possible method the application of which can give us a general statement about the rate of wages. We can say that the value of labour, like the value of any merchandise, depends upon the supply of and demand for labour. But this general statement too amounts to nothing more than an enumeration of the various influences that work together to determine wages.

A. The Supply of Labour.

(i) *The population of the country.*—As regards this it may be said that while wages depend upon population, population is also greatly affected by a rise or fall in the rate of wages. If the wages rise, there may be an increase or decrease in population. If the "standard of living" of the workmen is low, population would increase and if it be high, population may decrease. Again, wages may affect the supply of labour of a country by affecting efficiency. A rise in wages may rise the efficiency of the labourers, so that hundred labourers of increased efficiency may do the work formerly done by 200 workmen of unincreased efficiency.

(ii) *Immigration.*—The supply of labour of a country is much affected by immigration and emigration. The population of such countries as United States becomes increased by immigration. The number of people landing in United States annually is about one million per annum. On the other hand, emigration tends to decrease the growth of population *e. g.*, emigration of the English from England to U. S. A.

B. The Demand for Labour.—The demand for labour depends upon :—

(i) *the demand for commodities.*—The demand for labour is a derived demand. The demand is not for labour, but for the commodities which labour produces.

(ii) *the quantity of capital seeking investment in productive enterprises.*—The greater the amount of capital to open new factories and to enter into other productive enterprises, the greater, in the long run, would be the demand for labour. But for short periods, capital in the shape of machinery competes with labour, thus causing unemployment.

(iii) *the marginal efficiency of the labourers.*—Employers would employ labourers upto that point only at which the latter cease to yield a return larger than the cost of employing them. Suppose for instance that a man opens a tailoring shop. A number of workmen would be necessary. Suppose that he employs ten workers. After sometime he finds that the labour of only six of them yield a return more than his expenses on them. Following the principle of substitution, he would, then, replace the unproductive four men with machinery.

III.—*The causes of the difference in wages in different callings.*—The main causes determining the different wages that go to different classes of labourers are the following :—

(1) the agreeableness or disagreeableness of the different callings, The less troublesome the work, the smaller in general the reward.

(2) the easiness and cheapness or the difficulty and expenses in learning them. For example, a coolie and a pleader.

(3) consistency or inconsistency of employment in them, *e. g.*, a dak labourer.

(4) the small or great trust which must be reposed in those who exercise them, *e. g.*, a Commissioner.

(5) the probability or improbability of success in them, *e. g.*, a Barrister.

NOTE.—There are however certain callings which are particularly disagreeable and yet very low wages are paid in them. This is because only those people take them up who are rejected from other callings. For example, sweepers get extremely low wages in India.

It may also be noted here that apart from its advantages, the *caste system* is an economic drawback. The ablest men are sometimes forced to adopt a profession demanding very much less ability than he possesses. Therefore, economically, so much of his intelligence as is not required to carry out his work is wasted.

IV. The causes of different wages paid in one and the same calling.

In connection with the theoretical laws of wages, we come to enquire about a fact in real life. We ask what determines the different wages paid to different labourers in the same class of labour. We may ask why should a blacksmith get a smaller reward for his labours at Sambhal than that paid to a blacksmith at Delhi? There are two statements that can be made in this connection.

Firstly, when we examine the cases rather carefully, these apparent differences will be found to disappear. The blacksmith at Delhi charges higher rates, because the expenses of living at Delhi are higher than at Sambhal. Though the nominal wages may differ, the real wages are almost the same.

Secondly, let us suppose there are real differences in their wages. In that case the difference will be due to the difference of efficiency. If competition be free, the earnings of efficiency tend to equality.

V.—Strikes.

Labour organizations—such as Trades Unions—have undoubtedly increased power of the working class. They have contributed to the education of labourers, and promoted culture and social intercourse among their members, and have secured better conditions in the labour contract in several ways. They have decidedly increased wages. One of the means of accomplishing is by having recourse to strikes.

A strike is a concerted refusal to work. Strikes are often regarded as the sole purpose and the essential function of trades unions. But this is a mistake. The best

organizations and most powerful unions are those that declare the fewest strikes. Nevertheless, it is the last resort of the trades unions. In most civilized countries, the *right to strike* is not controverted. Every person has a right to refuse to sell his commodity if the buyer will not pay the price demanded. But the effectiveness and wisdom of strikes is still a matter of discussion.

Strikes, being appeals to force, possess all the disadvantages of war. They entail an enormous waste of productive energy. They cause great sufferings, and leave in the heart of the vanquished party a feeling of resentment, which prepares the way for future conflicts. But it cannot be denied that this method has helped to raise wages and reduce the hours of labour. The efficacy of strikes must not be judged from the number that are recorded as successful. A single successful strike may result in an increase of wages in a great many industries. It is, moreover, not so much strikes themselves which raise wages as the constant fear of the strikes.

Those who deny the efficacy of strikes as a means of increasing wages point out that wages have increased equally and even more rapidly in those trades in which strikes never occur and in which there are no labour organizations *e. g.*, domestic servants. But why is this true? Because these classes of labourers have profitted indirectly by the increase of wages in the organized industries. Wages have increased on the farms, simply because labourers have immigrated from the country to cities in quest of better wages. Again, the wages of domestic servants naturally tend to increase whenever the wages of industrial employees increase. Trades unions are becoming the regulators of the labour market.

VI.—Arbitrations, Conciliation and Sliding scales.

(i) Conflicts between labour and capital, like political conflicts between nations, tend to be adjusted by peaceful agreements. But industrial arbitration, in order to accomplish the best results, presupposes the existance of strong labour organizations sufficiently strong and enlightened

and sufficiently disciplined to accept even unfavourable judgments of arbitrators. In some of the great industries of England, Boards of Conciliation and Arbitration perform their work successfully. In the United States, the principle of conciliation and arbitration has steadily gained ground.

The formation of a committee representing both labour and capital, for the purpose of considering fairly the questions at issue, is an eminently rational method of settling disputes. This method is known as *Conciliation*.

(ii) When disputes are not fairly settled by conciliatory boards, *arbitration i. e.*, an appeal to the decision of an impartial third party, has often proved successful. Sometimes the two parties to a dispute voluntarily agree, in advance, to abide by the decision of the board of arbitrators.

(iii) Another device for securing industrial peace is the establishment of *sliding scales*. As the result of an agreement between employers and employees, valid for a stated period, the rate of wages is determined arithmetically according to the selling price of the product; when prices rise, wages rise, and *vice versa*. But it is applicable in the case of simple products only, *e. g.*, coal or cast iron; even in these cases it involves troublesome complications.

NOTE.—Sometimes agreements are made between employers' organizations and trades unions. These differ from the sliding scales; for the labourer here does not play a merely passive part.

PART V.

EXCHANGE.

CHAPTER I.

I.—Introduction.—Exchange occupies an exceedingly important place in modern life. Nearly all the wealth that is created is produced for the purpose of being exchanged. Take the wheat in the granaries, the cloth at the tailor's, the jewels at the goldsmith's &c., and ask: What part of all this wealth is destined by the producer for his own consumption? Very little or none at all. All these things are *merchandise i. e.*, objects intended for sale. Our thrift, our skill, our talents also, are most frequently applied not to satisfy our own wants, but those of *others*. It happens very rarely that lawyers, physicians, and notaries have to work for themselves, pleading their own cases, healing their own ailments or drawing up their own documents. They too regard these services from the point of view of Exchange. This is why when we estimate our wealth, we do not estimate it according to its utility for *us* but solely according to its exchange value, *i. e.*, its utility for *others*.

In the broadest sense, exchange involves a consideration of three classes of activities:—

(1) The actual work of transport.—The following difficulties, in this connection may be noted:—

(a) Distance.—Man's genius cannot do away with distance. He can not reduce the space that separates two parts of the earth. But practically the obstacle of distance is converted into one of time, and human ingenuity has been singularly successful in reducing the time necessary for traversing a given distance, *e. g.*, by railways

(b) The nature of commodities:—Weight, danger of injury, or of breakage, perishability or difficulty of preservation &c., are hindrances to transportation. But they may be partly overcome by rapidity of conveyance.

(c) *The nature and condition of roads.*—This is the most serious obstacle of all ; but it is also the one that human industry has coped with most successfully. By sea transportation is easy. On land the difficulties are greater. *Artificial roads*, on broken and uneven surface of the earth, are necessary for transportation. But road-building is a costly matter ; the better the road the more it costs.

It is of the utmost importance for a commodity to possess the most satisfactory system of transport in all respects. Because every impediment to quick and easy transportation is an addition to the total expenses of producing the particular commodity in question. Where a country has sound roads, railways, and a reasonable system of canals and rivers, it is in the best position to carry the work of production to its end.

(2) Money and the mechanism of Exchange.

When exchange is carried on directly, commodity for commodity, it is called *barter*. It is an inconvenient way and almost an impracticable operation ; because it requires a double coincidence. We have to find a man who requires just what we can spare and who can give just what we want. The difficulty increases when perishable things like eggs are to be exchanged for indivisible ones, like horses, oxen, carts etc. The invention of a third commodity to serve as a go-between becomes necessary to remove these difficulties. Money and the Mechanism of Exchange form big subjects. They require a separate and a fuller treatment.

(3) *Markets*, where goods are actually exchanged. The consideration of markets will involve a consideration of the principles on which goods are exchanged.

II.—Advantages of Exchange.

Whether exchange should be considered as productive is an old question for debate among economists. The physiocrats answered it negatively. They even tried to prove that exchange could profit no one. They argued that all exchange, if it is equitable, presupposes the

equivalence of the two values exchanged, and consequently implies that there is neither gain nor loss on either side. But this is sophistry. Even if one party be *cheated*, one man's profit is balanced by the other's loss.

The argument was refuted by Condillac long ago. If exchange never led to profit, or if every exchange necessarily implied that some one had been cheated, it is difficult to understand why men have persisted for so many centuries in carrying on exchange. In reality whatever I yield in exchange for something else is always less useful for me, less desirable, and hence worth less than the thing I acquire. Otherwise I should not give it up. The person who exchanges with me pursues exactly the same line of thought. The utility of all things is purely subjective, and varies according to the wants and desires of each person.

The advantages:—

(1) Exchange enables us to utilize, in the best way possible, a large quantity of wealth which, without exchange, would remain unused. Without exchange, what would England do with her coal?

(2) Exchange enables us to utilize in the best way a host of productive capacities which, without exchange, would remain inactive. If there were no such thing as exchange, each man would be compelled to produce all that is necessary to supply his wants. He would be obliged to regulate his production, *not according to his aptitudes but according to his wants.*

CHAPTER II.

MARKETS.

I.—The definition and the criteria of a market.

(I). Definitions.

(α) "The market for any given commodity is the aggregate of dealers in that commodity whose bids and offers effect the price."

(b) "Economists understand by the term "market" not any particular market place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly"—*Cournot*.

(c) "Originally a market was a public place in a town where provisions and other objects were exposed for sale; but the word has been generalized, so as to mean any body of persons who are in intimate business relations and carry out extensive transactions in any commodity. A great city may contain as many markets as there are important branches of trade, and these markets may or may not be localized. The central point of a market is the public exchange, mart or auction rooms, where the traders agree to meet and transact business. In London, the stock market, the corn market, the coal market, the sugar market, and many others are distinctly localized; in Manchester, the cotton market, the cotton waste market and others. But this distinction of locality is not necessary. The trade may be spread over a whole town, or region or country, and yet make a market, if they are, by means of fairs, meetings, published price list, the post office or otherwise, in close communication with each other."—*Jevons*.

II. The Boundaries of a market.

There are no set boundaries of a market. It may be purely local or so extensive as to cover the world. A fish market is only limited to one town; while the market for exchange securities, the more valuable metals, and to a less extent for wool and cotton and even wheat, is so extensive as to cover the whole western world. The modern means of transportation, the telegraph, the printing press etc, have a tendency to increase the extent of markets. They enable buyers from almost all parts of the world to compete with one another for the same supplies.

III. General conditions of a wide market for a thing.

(i) the thing should be of universal demand, for example, cotton,

(ii) the commodity must be capable of ^{being} easily and exactly described, e. g., cotton, wheat, gold etc., are in universal demand and they can be graded and sampled. Buyers need only see a sample to choose their goods.

(iii) It must be such as will bear a long carriage. It must not be heavy and must be carried easily from one place to another.

(vi) Its value must be considerable in proportion to its bulk.

Thus the character of the markets varies with area of space over which they extend. It varies even more with the length of Periods or Time. Before discussing the element of time, it is very important to know the laws of supply and demand.

IV. Supply and Demand.

We have seen that a market is necessary for every act of exchange. We have now to see how is it that wealth is exchanged for wealth at particular rates and not at rates higher or lower than those established under economic conditions. There is always one fixed price for equal amounts of a commodity of the same economic quality. When we study the subject attentively, we find that buyers want to buy a commodity at the cheapest possible rate and the sellers try to sell their merchandise at the highest possible price. Notwithstanding this human nature, certain economic forces make the buyer willing to buy and the seller willing to sell at that particular rate. The rate of exchange is fixed by the relation between the demand and supply of the commodity.

1. **Demand:**—Demand means the quantity of goods which people are willing to buy *at a certain price*. The demand for strawberries in a certain market on a given day does not mean the quantity of strawberries which people desire to consume on that day; it means the quantity which they are willing to purchase *at a certain price*. Now, before buyers can judge how much of a commodity they want, they must know the price of it; for if bread for

example, instead of being three pence per lb becomes four pence, a man may perhaps decide to take less bread than he might take if it were three pence a pound. Demand is governed by the marginal utility of the commodity to the consumer; and the utility of a thing to a man depends, as we have seen, on the quantity of the things of the same kind which he already has. Suppose a certain quantity of tea is to be had 2 \$ a pound, a person would be willing to give 10 \$ a pound once a year rather than go without, while if he could have any amount for nothing he would perhaps not use more than thirty pounds a year. But as it is, he buys say 10 lbs. at 2 \$ per lb. The difference between the happiness he gets from buying 10 lbs. or 9 lbs. is just enough to make him buy the 10th. But the fact that he does not buy the 11th shows that he does not think it would be worth extra 2 \$ to him. Two shillings therefore measure the utility to him of the ten which lies at the end or margin of his purchases. It measures its *marginal utility*. The fact that the marginal utility diminishes with the supply of an article Prof. Marshall calls the law of "Diminution of Marginal Utility."

2. Supply.—What determines the supply? Demand is based on the desire to obtain the commodity while supply depends on the overcoming of unwillingness to undergo discommodities. Although much work is done for its own sake and is therefore no economic measure, yet the chief motive for the most work is the desire to obtain some material advantage. Speaking broadly, it is true that the exertions which any set of workers will make, rise or fall with a rise or fall of remuneration offered to them. The position of the producers is that they are willing to produce as much as is required but they must realize such a price as would pay the expenses incurred in making the goods. They would of course like to get more, but if they raise their prices, the free competition in the market would cause them to be undersold. *Normal price* from their point of view is that which recoups the

normal expenses of production. If it did more than this, capital would flow in from other sources and competition would lower the normal price to the level of the expenses of production.

Cost of Production.—The “sum of efforts and abstinence” requisite to make a thing ready for consumption is called its Real Cost of Production. The sums of money that have to be paid for these efforts and sacrifices, will be called its Money Cost of Production or its Expenses of Production (*Marshall*).

The supply of a commodity, therefore, depends on its expenses of production. The expenses of production include:—

1. The price of raw materials, *e. g.*, in cotton industry, cotton, coal and other materials used in making it.

(2) The wear and tear and depreciation of building, machinery and fixed capital.

(3) Interest and insurance on all the capital.

(4) Wages of those who work in the factories.

(5) The gross earnings of management of those who undertake the risk and engineer and superintend the work.

Since the charges differ according to the amount to be produced, they must always be calculated with reference to a particular amount.

Prime Cost and Supplementary Cost.

It is important to know what is Prime Cost and what is Supplementary Cost. Over the long periods, both of these charges must be met. But the prime cost only is payable when the factory works for short periods.

(1) *Prime cost* will cover the price of raw materials actually required in making an article and the wages of the labourers actually employed in turning out that article.

2. *Supplementary Cost*—Will include all the general expenses *viz.*, (1) Wear and tear of machinery (2) Pay of permanent official staff (3) The earnings of an entrepreneur.

These two elements together make up what is called the Total Cost.

Note.—In considering demand and supply we must also note that:—

(i) *The Elasticity of demand* for a commodity is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price.

(ii) *The Elasticity of supply*.—The supply of a commodity is elastic when a slight rise in price brings out large stocks for sale, and non-elastic when it has little effect.

The Laws of demand and supply.—May be briefly illustrated thus:—

Price	...	Demand	...	Supply.
Higher	...	Less	...	Greater.
Lower	...	Greater	...	Less.

V.—*Marginal Demand and Supply*. The Marginal demand for a thing means the demand for that last portion of it which the consumer finds still profitable to purchase at a certain price. The Marginal supply, on the other hand, means that last portion of a commodity which a producer still finds profitable to produce at a certain price.

VI.—*Price*—Marginal demand and marginal supply determine price. The consumer pays for the whole amount a price which is limited by the price that he pays for this last portion; for there is always one price for equal amounts of a commodity of the same economic quality

while the utility of its different doses to different persons is different. The producer, on the other hand, too, sells his goods at the price which is limited by the price which must be paid for that last portion of the commodity in producing which he had to perform the greatest possible labour; for there is always one price fixed for equal amounts of the same commodity and it requires different doses *e. g.*, it requires a good deal of labour to make the 5th lock, for a man who makes 5 locks a day, than to make the 3rd or the 2nd.

VII.—Equilibrium of Demand and Supply.

Having learnt some of the forces that govern demand and supply we can now understand how the price of any kind of goods is decided. We can now look into the way in which supply and demand operate together and act upon each other to determine the price of a commodity.

In any market at any time the price will be so adjusted, through the competition of buyers and sellers, that the quantity demanded will be equal to the quantity offered at that price. This is the Temporary Equilibrium Price. (Marshall). Suppose for example, that on a given day in a given market, a certain quantity of corn, of one and the same economic quality, has been brought for sale. The amount which each seller offers at any price is governed by (1) his need for money and (2) his calculation of the present and future conditions of the market. The amount which each consumer intends to purchase is governed by the marginal utility of the commodity. At certain prices sellers would sell nothing; at certain prices buyers will buy nothing. There are intermediate prices at which larger or smaller amounts would be sold and would be purchased. There is only one price at which the amount which sellers would be ready to sell will be equal to the amount which buyers would be willing to buy. This is equilibrium price. Let us illustrate this :—

At the price	Holder's will be willing to sell.	Buyers will be willing to buy.
20 Rs.	1000 quarters	600 quarters.
19 Rs.	700 "	700 "
18 Rs.	500 "	900 "

In this case prices will fluctuate round Rs. 19. Some sales would be made above and some below, but both parties will use all their skill in bargaining and Rs. 19 will be the price established under the conditions of demand and supply.

Note.—A position of equilibrium, if it be a true position of equilibrium when once established, tends to be maintained. All oscillation, either on one side or on the other, tends to return to equilibrium point, if the general conditions are maintained unaltered.

(i) If the supply price is greater than the demand price, *i. e.*, if the sellers receive more than their cost of production in the trade of one particular commodity, more labour and more capital will be attracted towards that trade. People would leave their own occupations and would produce that commodity. By the working of competition, this increased supply would lower prices until a balance is set up. For example, suppose that the demand for leather articles be suddenly raised and they may command a much higher price in the market. In order to gain profit, new factories and leatherworks will be opened and supply will be increased. This increase of supply would diminish price until it comes down to the normal value.

(ii) On the other hand, if demand price is less than the supply price, the reverse tendency operates. Sellers receive less than is sufficient to remunerate them for the amount in question. Those on the margin of doubt whether to go on producing, decide against, and the tendency is for the supply to be restricted until a balance is set up. The decrease in supply increases price until it rises to its normal point.

When demand price equals supply price there is equilibrium. All that equilibrium means is a position in which the price offered for a given amount is the price that it will just pay sellers to accept for that amount. The marginal demand price, *i. e.*, the price which consumers are just induced to offer for that amount of the commodity equals the supply price or the price which it only just pays producers to receive for that amount.

RECAPITULATION.

We assume a perfect market with absolutely free competition and with just one price for one amount of a commodity. There is a fixed supply price and a fixed demand price for any and every given amount of a commodity. In the one case, what buyers will offer is governed by

final utility to them of the quantity of that commodity; in the other case, the price is determined by the marginal expenses of producing that quantity of the commodity in question, the expenses incurred in producing that last portion of it, which just pays the producer to produce. There is a point at which marginal demand price equals marginal supply price. This is equilibrium point, which the operation of market forces is constantly tending to establish, and which when once established tends to be maintained.

VIII.—The Influence of Time : Long and Short Periods.

Taking time into consideration, the problem whether utility or cost of production determine value depends upon the length of period involved :—

A.—A Short Period.

In short periods, for example, a day, the stock^o to be sold is practically fixed, and the value is generally determined by demand. Suppose for example, that fishermen in Delhi find one morning in Exmas week that the demand for fish has greatly increased unexpectedly. They would then try to meet the demand as best as they can by the stock in hand, because there is no time to make additions in the volume of production. Any addition attempted must be made either by existing appliances or by bringing into use machinery freely laid aside as useless. Supply remaining almost the same, demand determines price.

On the other hand, if demand becomes suddenly low on a certain day, there is no time to reduce the number of working labourers and appliances. The price in this case too will be determined by demand, and it would be considerably lower than the normal price.

B.—A Longer Period.

For the longer period, say a few months only, the supply will be influenced by the cost of producing the commodity.

C.—A long period.

In long periods, say of years, the cost will be influenced by the cost of producing the labour and capital required for the production of the commodity. The element of time in long periods is sufficiently extensive to permit of any increase in the material appliances of production and any addition to the labour supply that may be deemed necessary. Suppose that an industry, relatively to other industries, becomes extraordinarily profitable. If the period in question be short, there is no opportunity of increasing the sum of material appliances or of adding satisfactorily to the labour supply. Hence for the time being, they yield an abnormal return. But if the period is long, the prospects of the industry attract both capital and labour. The labour supply, instead of flowing into other industries flows into the said industry and is trained for it until the industry becomes normal. So, too, capital flows into it until the material appliances are equal relatively to those in other industries. For example, suppose that on account of the transfer of the Capital from Calcutta, demand for fish becomes permanently increased in Delhi. The increased demand pays a more than proportionate price and encourages others to enter the industry. The field labourers find it to their advantage to become fisher-men, while capital that might have been absorbed in other channels, embodies itself in the materials of the fishing trade.

CHAPTER III.

METALLIC MONEY.

The present industrial system is based on the division of labour; but division of labour implies exchange. Thus every extension of the division of labour must be accompanied by a corresponding development in the system of exchange. Since *barter* can only be carried on to a very limited extent on account of the difficulties it presents, men were compelled to choose a medium of exchange to do away with these difficulties.

The function of medium of exchange has not been assigned to any particular object by the terms of an ex-

press agreement, but certain objects forced themselves upon men's choice by reason of the peculiar qualities which fitted them for the important service. This commodity was, in accordance with circumstances, mostly hewn stones in primitive societies, cattle in patriarchal societies, rice in Japan, and furs in Hudson Bay Territory, &c., &c. But in civilized societies, at a very early time, gold, silver and copper were chosen as mediums of exchange.

B. Functions of money.—The primary functions of money are :—

(1) It serves as a common medium of exchange. It does away with the 'double coincidence' of barter.

(2) It serves as a standard of deferred payments.

With the increase of commerce people begin to borrow and lend. It therefore becomes very important that there should be something in terms of which the amount to be paid may be stated. If the lender is paid back in kind, the commodity in question may have deteriorated in value. The lender will want just what he lent and interest upon the same. Metallic money representing a command over commodities in general can most suitably be used for the purpose, as it is free from changes of a violent nature.

(3) It serves as a store of value. People frequently have occasion to compress their wealth into small compass. Clearly money offers the most convenient way of doing this.

(4) It serves as a measure of value. This function is closely related to No. 1.

C. The Qualities of Metallic Money.—The natural properties which give the precious metals a marked superiority over all other commodities are :—

1. Facility of Transportation. No other objects have so great a value in so small a weight.

2. Unlimited durability. By virtue of chemical properties that make rusting, corrosion &c. impossible, gold and silver may be kept unchanged for an indefinite period.

3. Identity of Quality. As the precious metals are what the chemists call elements, they are always identical, that is to say, one piece of pure gold is like every other piece of pure gold. There is no need for "samples" of gold.

4. Difficulty of counterfeiting. The precious metals because of their characteristics, colour, weight, and metallic ring, may be recognised by the way they look, feel and sound. No other substances are likely to be mistaken for them.

5. Perfect divisibility. The value of each fragment of an ingot is exactly proportionate to its weight, and the value of all the fragments put together is exactly that of the original ingot.

NOTE.—Jevons enumerates seven qualities:—

1. Utility and value; 2. Portability; 3. Indestructibility; 4. Homogeneity; 5. Divisibility; 6. Stability of value; 7. Cognizability.

D. The conditions which should be fulfilled by all Good Money:—(i) All good money should possess the quality of being smelt without any loss of value. It should stand the "fire test."

(ii) *All legal money should have a metallic value strictly equal to its nominal value*; for we know it has a two fold function: it is the sole instrument of purchase and the only instrument for the payment of debts. Its legal tender quality is based only on the above mentioned condition. Since every piece of metallic money may be used as a merchandise as well as a coin, it is good money only whenever its face value equals its value as an ingot.

If the value of the ingot be higher than that of the coin, the money is said to be *heavy*. Under this circumstance, the public will regard coins as bullion, and will sell them by weight. This process will continue until the coins have completely disappeared. If the value of the ingot be less, it is said to be *light*. This is much more to be dreaded; because, it is liable to lead a government into

temptation and because, once such light money has entered into circulation it remains most persistently. These circumstances form the basis of one of the most curious laws of political economy :—

E. The Grasham's Law. In simple language the law states :—

"In every country where two kinds of legal money are in circulation, the bad money always drives out the good."

Of two articles men naturally prefer that of the best quality. It is a matter of wonder then why should they act differently when money is the article in question. It is because money is not for our personal use. It is only employed to pay our creditors and our tradesmen. It is then foolish on our part to use better money for this purpose, it is on the other hand to our advantage to choose the worse.

II. Good money disappears in three ways :—

1. *By Hoarding.* When people want to put money aside for possible emergencies, they choose the best pieces because these offer the most security.

2. *By payments abroad.* In international commerce a foreign creditor takes the money for the weight of the fine metal it contains. Therefore we keep light money for use at home and reserve good money for foreign commerce.

3. *By sale by weight.* As soon as good money is worth more as metal than as coin, it is clearly profitable to stop using it as money and to regard it as bullion.

III. Grasham's Law is applicable in the following cases :—

1. Whenever worn money is in circulation together with newly coined money.

2. Whenever depreciated paper money is in circulation together with metallic money.

3. Whenever *light money* is in circulation together with *good money*, or even, when *good money* is in circulation together with *heavy money*. In this case the lighter drives out the other.

F.—The value of money.

What determines the value of money? Obviously, the demand for and the supply of money like those of any other commodity. The supply of money depends in the first place upon the cost of producing the money and upon any other cause limiting its supply and secondly upon the rapidity of its circulation.

The demand on the other hand depends upon the number of transactions in which it is used as a medium, i. e., the amount of exchanging work to be done by money. We must remember that all the wealth produced is not exchanged through the medium of money. Producers sometimes directly consume a part of the wealth produced by them; sometime wealth is exchanged for wealth by barter; sometimes the use of credit, in modern times, economises the use of money: so that only a part is exchanged through the medium of money. And this constitutes its demand.

II.—Metals.

Metals possess the qualities essential to the material of money to a greater extent than other substances. Some of the metals seem to be marked out by nature as most fit of all substances for employment as money, at least when acting as a medium of exchange and a store of value. They possess malleability also, so that we can cut and hammer them into any form, and can impress a permanent design upon them by means of dice. *They are, however, less satisfactory as regards stability of value.* They possess intrinsic value too, besides being used as medium of exchange, and people purchase them even for other purposes. Hence an addition in their supply tends to lower their price, and an increase in the demand for them tends to increase their price.

The Problem of Single or Double Standard.—In order to avoid considerable fluctuations in the value of precious metals, owing to change in the conditions of supply (*e. g.*, the discovery of gold mines in Australia and silver in Mexico) every civilized country is obliged to employ simultaneously coins of gold, silver and copper or some similar metal. But there is no need to use all three as legal tender; in fact copper is always a token money. Only the other two are of interest in this connection. Should both precious metals receive the character and attributes of legal tender, or should only one be thus employed? This question, formerly called "the problem of single or double standard" is now termed "the problem of mono-metallism or bi-metallism."

NOTE—*Legal tender*, This term denotes "such money as a creditor is obliged to receive in requital of a debt expressed in terms of money of the realm."

Token coins are defined in values by the fact that "they can, by force of law or custom, be exchanged in a certain fixed ratio for standard coins. The metal contained in a token coin has of course a certain value; but it may be less than the legal value in almost any degree."

A.—Monometallism.—In the single standard system only one metal is employed as legal tender, all other coins are token coins. The gold coin, for example, is made legal tender up to any amount, while other coins are legal tender for small amounts only.

Its Difficulties :—

(1) the adoption of the gold standard means the demonetization of silver; for if silver coins are not legal tender, they must, at least in part, be withdrawn from circulation.

(2) fluctuations in prices are much more to be feared with a single standard than with a double standard. Every fluctuation in the value of money at once causes an inverse fluctuation in prices. When there is but one money these fluctuations will be frequent and abrupt, throwing the whole economic mechanism out of gear and continually provoking crises.

B.—Bimetallism.

Bimetallism is a monetary system in which the principal or the standard money is composed of two metals—generally Gold and Silver—circulating together. According to this system, free coinage of both metals is established at a fixed rate of exchange. Each metal is unlimited legal tender, so that people who have debts to pay may have the option of paying in either metal. It has been advocated that such a system would obviate and minimise changes in the price level and would be much more stable than a mono-metallic currency.

I.—The advantages claimed for Bimetallism.

(i) It would enlarge the stock of standard money and thus lessen fluctuations of price. For the larger the stock of money the smaller will be the proportionate changes in its value caused by additions to it or by new demands for it.

(ii) It is claimed that the system would establish a steady par of exchange between gold and silver using countries. When a merchant in a gold using country sells goods to one in a silver using country, the silver price at which he sells is determined by the rate of exchange between silver and gold at the date of sale. But when the time comes for payment the price of silver may have changed so that the par of exchange between the two countries is now different and a loss is incurred by one of the parties. Such uncertainty is extremely harmful to commerce.

(iii) It would prevent prices from falling. It is held by many that falling prices are bad for trade. Under bimetallism the stock of money would be increased more rapidly and would cause its value to depreciate slowly and thus business would be stimulated.

II.—The maintenance of the chosen ratio between gold and silver,

The vital problem of Bi-metallism is the maintenance of the ratio: The ratio chosen would be the market ratio prevailing at the time. Even so it would seem that the ratio could not be maintained against the influence of Grasham's law; for should an attempt be made to circulate two metals side by-side the cheaper will be used for monetary purposes and the dearer will be exported. This would happen when Bi-metallism is adopted by one country only; but it is claimed that were Bi-metallism adopted over a sufficiently wide area, Grasham's law would be neutralised and the evils of constantly changing from one metal to another would be done away with. It is argued that as soon as one metal fell in value or showed signs of falling, the demand for it would increase. The demand for the other metal would fall off owing to its rise in value. The effect would be to check the separation in the value of the two. Suppose that the ratio of 16 and 1 were adopted *i. e.* one tola of gold will buy 16 tolas of silver. Should the market value of silver fall, say to 17, Grasham's law will begin to operate. People will buy silver and pay their debts and thus silver will replace gold in the currency, but the increased demand for silver for the currency will cause a slight rise in its value while the decreased demand for gold owing to its demonetisation will cause its value to fall. The two movements, being in opposite directions, will tend to keep the two metals at their established par of exchange. This is known as the *Compensatory Action* of the double standard. The steadiness of the ratio between the two metals would however depend upon the rate of increase of cheaper metal, but were Bi-metallism universal the ratio might be maintained.

III.—Reasons for not adopting Bi-metallism.

(i) Bi-metallism to be a success must be international and there are many obstacles in the way of its adoption, *e. g.*, national prejudice, the desire of each country to have its own system of currency &c. The difficulties of changing the ratios of coinage already existing in different countries and the disturbance which the change would produce

in existing contracts and prices, all stand in the way of international agreement.

(ii) The fall in prices has ceased since 1896 and since that date prices have risen, the output of gold has increased enormously, and this, together with the constantly increasing means of economising it, is a guarantee that the supply will be sufficient for the future.

(iii) The difficulties of trade between gold and silver using countries has been solved by India by means of the gold standard exchange system. Other countries are following her example.

(iv) The effect of rise in prices upon trade has been exaggerated. Rising prices may temporarily give an impetus to trade, but over long periods the prosperity of trade depends upon the progress of invention and science, and upon the education and organization of labour.

CHAPTER IV.

PAPER MONEY.

Metallic money is replaced by Paper Money. It was at first very much doubted whether it is possible. It is manifestly impossible to substitute for wheat or coal mere pieces of paper on which are inscribed such words as "One Hundred Bushels of Wheat" or "One Hundred Tons of Coal." Such pieces of paper could not provide either food or warmth. But we know that money is unlike any other wealth. A piece of money is nothing but *an order giving its possessor the right to claim a certain share of existing wealth.* The part played by an "Order" can be taken by a piece of paper quite as well as by a piece of money. The subject will become clearer if we distinguish three kinds of paper money.

1. The Classes of Paper Money.

1. *Representative Paper Money*, is that which merely represents an amount of coin that has been deposited somewhere. This kind of paper money is secured by coins for which paper is simply a substitute. The American

gold and silver certificates, guaranteed by gold and silver deposits in the Treasury of the U. States, are good examples of this kind of paper money. They are receivable for all public dues, but are not legal tender. This form of paper money seems to present no difficulties.

2. *Feduciary, Convertible or Redeemable* paper money is that which takes the form of credit instruments. It is a promise to pay a certain sum of money. The value of the paper evidently depends on the solvency of the debtor. It is not secured by any deposit. Bank notes fall under this description of paper money. The national bank of the United States issues money of this sort, guaranteed by government bonds deposited with the Treasurer of the United States.

3. *Conventional, Inconvertible or Irredeemable* paper money, represents nothing and confers a claim upon nothing. There is no provision on the part of the government to exchange it for coin; and it may be regarded as money on which the government has charged approximately a 100% seigniorage. When a government has insufficient metallic money, it issues strips of paper with the appearance of promise to pay. But every one knows that this is pure fiction. This kind of paper money is either issued directly by the state or is the result of the degeneration of paper money that was once convertible.

The substitution of paper money in this third form seems hard to understand. It has, however, performed the function of money in Russia, South America, and the United States. These strips of paper serve the very same purpose as coins. Yet we must admit some important differences between the value of paper money and that of metallic money.

2. **Difference in the value of Paper Money and that of Metallic Money.**—The value of the paper money is always more restricted, more precarious, and more changeable.

(a) It is more *precarious*, because it is dependent upon the will of the legislator, and can be annihilated as well

as created by law. Should the law demonetize paper money, the holder will have in his possession nothing but bits of paper. The same thing is not altogether true of metallie money; for besides its legal value it has also a natural value, due to the physical and chemical properties of the metal it contains.

(b) It is more *restricted*, i. e., its circulation is limited to a narrower area than that of metallic money. It can not be expected to circulate beyond the boundaries of the nation which confers value upon it. Metallic money, on the other hand, can circulate everywhere—if not as coined money, at least as bullion. That is why paper money is essentially a national money, while metallie money is universal and international.

(c) Finally, the value of paper money is more *changeable* than that of metallic money for the excellent reason that the quantity of paper money depends solely on the will of the government, while the quantity of metallie money depends on natural resources. An imprudent, careless government can depreciate paper money by issuing more than is needed, but no government on earth can depreciate metallic money in this manner. Even if the issue is restricted, there are some other inseparable disadvantages of paper currency. For example, if a period of great business activity, requiring an increase in the instruments of exchange, is followed by a period of depression, in the first period there will probably be a dearth, while in the second there is the liability of an excess of paper money. Metallic money, too, to some extent possesses this disadvantage. But the precious metals are accepted everywhere, and if they are in excess in one country they naturally flow into others.

The above three disadvantages of paper money would vanish almost entirely if all civilized countries would bind themselves:—

(1) to confer the legal tender quality on only one kind of paper money,—paper money which shall be accepted every where.

(2) to augment its quantity only in a measure fixed in advance and calculated for each nation,—perhaps according to the increase of its population.

3. Advantages of Paper currency.

(1) Portability of comparatively large sums, the possibility of sending money cheaply and comparatively safely are obvious advantages.

(2) When a Government falls short of money the creation of paper money is a very convenient way of paying without being obliged to borrow from abroad and hence without being required to pay interest.

(3) It increases the wealth of nations to the extent that it permits of reducing its supply of the metallic money. All the labour devoted to the maintenance of the supply of these metals could be utilized for productive purposes.

4. Is the creation of Paper money equivalent to the creation of wealth? The idea is evidently absurd. Can wealth be created out of nothing? Yet the introduction of paper money can to some extent increase the wealth of nations. Suppose that a householder possesses several thousand dollars' worth of silverware, but decides to use porcelain and sells his silver to employ productively. This increases his income. This is exactly the plan with which the issue of paper money may be compared. Nations may use paper money for their internal circulation and send all metallic money thus saved to be invested abroad, either by purchasing stock, railway shares, land and ships or by improving foreign industry and agriculture. These investments would, in one way or another, produce 4 or 5 per cent. interest and thus result in an increased annual revenue.

5. The Dangers resulting from the use of Paper money and the Way to Prevent them.—The advantages that paper money can procure for a country or for a government are real enough, but they may be dearly paid for. When an imprudent government, overstepping the proper limit, issues more paper money than is needed evil effects are produced. When paper money is issued more

than the amount of metallic money in circulation, the value of paper money falls and it becomes depreciated. There are several signs which should warn us of the danger even when it is far off:—

(1) The first of these signs is the *premium for gold*. No sooner has paper money been issued more than the amount of metallic money in circulation, gold and silver money begin to command a premium. Gold and silver money retain their former value, and people begin to seek bullion to send abroad and they will pay a small premium to obtain it.

(2) The second sign is a *rise in the rate of exchange*. Foreign bills of exchange are always payable in gold. As soon as the value of paper money falls, foreign bills will rise in price just like gold itself, since they are in fact equivalent to gold.

(3) The third sign is the *flight of metallic money*. This follows according to Gresham's Law.

(4) The fourth sign is a *rise in prices*. This appears later on, and shows that the evil has already become a grave one. While the depreciation of paper money is slight, prices except those of the precious metals are not effected, but when the depreciation reaches 10, 15, or 20% the evil suddenly bursts forth.

Prices are determined by the relation of demand for and supply of money in a country. The demand consists in the offering of goods for money; the more goods are offered, the greater the demand. The supply consists of the paper money pieces, whatever their material or form, available for the purchase of goods. When the supply of metallic money diminishes, according to Gresham's Law, and demand remains unshaken (the number of transactions to be made through it remains the same) prices rise. This is known as the *Quantity Theory of Money*.

(5) Finally we must note that there will be *two different sets of prices* for commodities, one payable in metallic money and the other in paper money. The difference between the two prices exactly measures the depreciation of the paper money.

This state of affairs can be remedied in two ways:—

(1) By making the note convertible, as did the Americans with their Greenbacks and the English when the payment of notes was resumed in 1816.

- (2) By strictly limiting the amount of issue.

CHAPTER V.

CREDIT.

Paper money economizes metallic money, but this advantage is obtained at the price of serious disadvantages. Now there is another way to economize metallic money which is more effective and less dangerous than paper money. It consists simply in *doing away with every instrument of exchange*. In the first place, *cash sales* are replaced by *sales on credit*, and in the second place, once promises to pay have been made, we seek to have these promises to pay fulfilled in some other way than by actual payment in metallic money. This is done by means of credit, the chief instruments of which are cheques, bills of exchange, system of book credits, &c. Credit is protracted exchange, *i. e.*, exchange which is not complete until a certain period has elapsed. In a cash transaction, the commodity sold, and the price paid for it are the two chief elements; but in credit, payment is made at some future time, and so it consists of three elements—the third being the element of *time*. In order to understand this complex mechanism these terms should be clear to the mind.

I.—A bill of Exchange, or a draft is a written order by which the person drawing the bill orders some other person, upon whom he has a claim, to pay a specified sum of money to a third person. The creditor who has sold goods makes out a paper to this effect:—

New York, November 13th, 1908.

To William Wilson (debtor), Chicago, Illinois.

At sight of this bill (or at some specified time) pay to John Jones or order, One Hundred Dollars, for value received.

(Sd.) HENRY BROWN.

(Creditor.)

Brown will sell this bill to Jones who may transfer it to any one else by endorsing it (writing his name on it). In this manner one bill may serve to make many payments before the drawee is called upon to make final payment. The use of such bills avoids the manifest absurdity of sending two shipments of coin across the ocean. Without such ingenious devices, international trade would be impossible. It was first of all in international commerce that men learned to employ credit and to dispense with the direct use of money.

Suppose that American wheat dealers have sold to England \$2,000,000 worth of wheat at six months' credit; that is to say, instead of receiving money from England, they have drawn bills of exchange to the value of \$2,000,000 upon their English debtors. Now suppose furthermore, that English manufacturers of cutlery have sold \$2,000,000 worth of knives and forks to American dealers on similar terms and have drawn an equal amount in bills of exchange payable in the United States. Instead of sending coin, the American purchasers of cutlery in the United States will simply purchase from the American wheat dealers the \$2,000,000 worth of bills of exchange payable in England; they will then send these bills to their English creditors in place of money, saying, "Collect these sums from your fellow country men." It will not be difficult for them to procure these bills of exchange, for, as we shall see, there are persons called bankers who make it a business to buy and sell, *i. e.*, persons who buy paper payable abroad in order to sell it to those that require it.

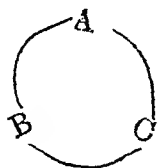
It is true that this example supposes that the two countries are indebted to each other for exactly the same amount,—a supposition that is very unlikely to hold true. But although it is not directly true, the same result may, nevertheless, be reached in a roundabout way. Let us grant for instance, that the United States has purchased \$2,000,000 worth of tea from China, but sold nothing in return. The above kind of compensation then seems impossible. But it is not so. Americans may not be

obliged to send coin to China. Although America may have sold nothing to China, there are other countries probably that have sold goods there and that are consequently creditors of the Chinese. All the Americans need do is to *buy their claims on China*. When they shall thus have become creditors of the Chinese, nothing will be easier than to balance their accounts with the country from which they bought the claims on China. It is possible for instance that England has sold to China \$2,000,000 worth of cotton cloth. In this event we should only have to buy England's claim upon China for this sum; or, to put it technically, we might purchase at London, paper payable in Shanghai or Hong Kong. But it may be objected that in any case the Americans will be obliged to pay it to England or to China. This, however, is an error. It matters very much whether they owe to China or to England, for in the latter case, it is only requisite that they shall themselves have a claim of \$2,000,000 against England (perhaps for wheat they have sold her) in order to balance accounts for all three nations, perhaps without the payment of a single dollar in money.

The Rate of Exchange. Having known this ingenious device for international payments, we must inquire what determines the value of those bills. Evidently the degree of confidence that can be placed in the debtor, and the period of time which must elapse before the bill is due, affect the value of the bill. But apart from these causes the value of the bills of exchange, even of those payable at sight or perfectly reliable, depend upon changes in their demand and supply. When, the claims of a country on foreign countries amount to a higher value than its *debts* abroad, there is not enough commercial paper for all *i. e.*, demand exceeds the supply. Competition among buyers therefore raises the value. Such paper is said to be *above par*; it rises to a premium. Conversely when its *credits* abroad represent a lower amount than its *debts* abroad, the supply exceeds the demand, and many bills find no purchasers. Competition among sellers therefore decreases the value and the paper is said to *fall below par*.

Va'uations in the price of exchange are, however, confined to narrow limits than that of ordinary merchandise because:—(1) Only those who want to send money abroad purchase these bills to avoid the expenses of shipping coin. If the bill costs more than the cost of shipping coin, people will not purchase it. Conversely creditors of foreigners, who seek to negotiate these bills to avoid the expense of collecting them abroad and importing coin, will surely adopt the latter method, then sell their papers at too low a price. (2) A rise in the rate of exchange acts as a premium on exports and the increase of exports will give rise to an increase in the amount of bills of exchange. Consequently the value of these bills, by the law of supply, will gradually fall until foreign exchange will be at par.

II.—**Cancellation of indebtedness.**—In the transaction of business between individuals, we are by no means so far advanced. Yet exchanges between individuals could be effected by means of the same system as that used between nations, namely selling on short credits, creating bills of exchange and passing them from person to person until they are counter-balanced by each other. For example, in the same town let there be three persons, A, B, and C. Suppose that A is a creditor of B's, B, a creditor of the same amount of C's and C in his turn a creditor of A's. Instead of having the sum of money owed by the three debtors respectively to their three creditors pass through a complete circuit, it would be far simpler to settle the whole transaction without paying a cent in cash. If it be said that it is highly improbable that C should be a creditor of A's, and should, as it were, be purposely placed where he is, in order to close the circle. the answer is that, if C is not a creditor of A's, he will finally come to a man to D, E, F, G or H etc., until we finally come to a man who in his turn is a creditor of A's, and then the problem is solved. The more persons there are in the operation, the better chance there will be of closing the circle.

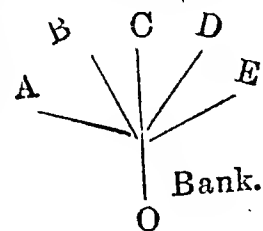


III.—The system of book credits.

But we can conceive another method, infinitely more simple in theory and easier to understand. The device of Book Credits also very conveniently saves the frequent handling of metallic money and its highest developments is seen in banks. Book Credit is a device by which business-houses, which have frequent transactions with each other alternately buying and selling, settle their indebtedness not by the transfer of coins but by debiting and crediting each other in their books and only paying the balance when sufficiently large.

NOTE.—Before dealing with the system of Book Credits, it is better to know what is a cheque? A Cheque may be defined as *an order on a bank to pay some one a specified sum of money*. It can be drawn only against a deposit of money in the bank or against a credit previously agreed to by the banker.

(a) **The Single Bank System.**—Suppose that in an isolated town there is only one bank in which all the inhabitants have deposited their money. If A wishes to pay B, he need only write a cheque and give it to B, B pays the cheque into the bank, but does not want to draw cash. The transaction is performed by the bank debit in A's account and credit in B's account. That is to say, the bank will deduct that amount from A's account and will add the deducted amount in B's account. The same thing would happen, if B paid C or D paid E etc. Thus only a stationary amount of metallic money would be needed. But since all may demand coin, a reserve should be kept for all demands.



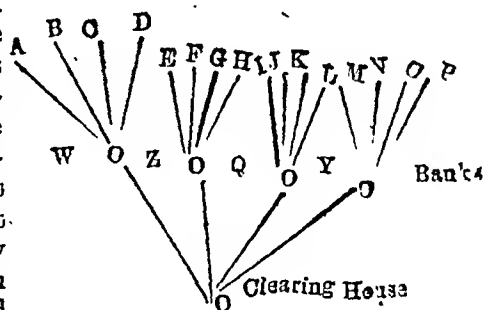
(b) **The system of Two Banks.**—Suppose the town has two banks, some inhabitants having their accounts with one and some with the other. The method of payment will remain the same. If A who banks in bank W wants to pay G who banks in bank Z, A will draw a cheque on his bank W and give it to G, who, not wanting money, will pay it into his bank Z. If the banker of the bank Z

presents the cheque to the banker of the bank W, a payment of coin must be made, but there would be many transactions of this nature. The two banks will continually avoid paying coin by the Book Credit system between themselves, only paying the balance when it becomes inconveniently large.

(c) **The system of Many Banks and a Clearing House**—Suppose in a large town there are many banks. Operations will be exactly as in the Two Banks System except that the simple accounts will have become more complex and developed into a Clearing House.

For example, suppose that A purchases fifty dollars worth of goods from E and pays with a cheque for that sum; E in turn, buys fifty dollars worth of goods from I and uses a cheque in payment; I buys fifty dollars

worth of goods from M and pays in the same manner as A and E. Now suppose that each of these persons has an account at a different bank. The recipient of the cheque simply deposits it at his own bank and is credited



for the amount of the cheque. In the course of a day's business each bank receives a great variety of cheques drawn upon different banks. Then the representatives of the various banks meet at a clearing house and balance their claims against each other. Banks situated in different places settle their accounts with almost equal ease. They have their agents in the nearest clearing-house city. The Bank of Bengal, with its numerous sub-offices is a good example.

IV.—Banks.—A bank has been tersely defined as “a manufactory of credit and a machine of exchange.”

Functions.—Borrowing and lending are the two fundamental transactions of all banking business. The sums which the banks borrow are usually obtained through deposits, and their loans are usually made in the form of discounts; they are therefore commonly called *banks of deposit and discount*. In some cases, they also perform a third transaction, namely the *issuing of notes*. This operation is not essential to a bank; often it is an exceptional privileged function belonging only to certain banks known as *banks of issue*.

(a) **Deposits.**—The banker's first task is to get capital from others. He tries to get hold of the circulating capital which in the form of money people carry in their pockets. In all countries there is a large amount of capital of this sort—capital that is not fixed, which produces nothing but which is simply kept in readiness for the time when it shall be employed. The banker spares the trouble of taking care of these sums, turns this inactive capital into an active one, pays a low rate of interest, and renders the additional service of being the treasurer of the depositors. Whenever a person has to pay a creditor, the latter is sent to the bank to receive payment upon presenting a cheque or written order detached from the debtor's chequebook.

(b) **Discounts.**—When this circulating capital has been borrowed by the bank at a low rate, the next step is to turn it to account by lending it to the public. Since this fund is only a trust, the banker can only lend it for short periods—say 3 months,—for he may be required to refund it at a moment's notice. The most suitable form of short investments is the bill of exchange. When a merchant has sold goods on credit, and happens to require money before the time for payment is reached, he turns to the banker, who will advance the sum that is due, minus a small amount which constitutes the banker's profit. Thus the banker acquires the merchant's claim on his purchaser i. e. his bill

of exchange or promissory note obtained from his debtor. The banker keeps this bill or note until the time when it falls due, whereupon he collects it of the debtor. This transaction is called discounting.

Banks also lend money :—

(a) By *making advances* on securities.

(b) By granting an *open credit* to their customers, who are thus entitled to withdraw more money than they have deposited. As such *uncovered* loans or *overdrafts* are exceedingly risky, and are made practically without security, many banks refuse to transact them.

(c) *By the issue of bank notes.* Bankers have indeed conceived the ingenious idea of actually creating the capital they need, by issuing simple promise to pay *i. e.*, by issuing bank notes. Although a bank note is only an instrument of credit like a bill of exchange, yet it represents a far more convenient form of credit claim. It is in fact superior to most credit papers for these reasons :—

1. It is *transferable to bearer*, just like coin, whereas a bill of exchange is subject to the formality of indorsement.

2. It is *payable at sight*.

3. It is *payable on demand*, whereas negotiable paper may lose its value at the expiration of a certain period.

4. It is always for a round sum, whereas commercial paper often has a fractional value.

5. It is issued and signed by a well-known institution.

6. Finally, it yields interest.

Although the issue of bank notes extends their transactions very much, yet we must not forget that the sum total of bank-notes represents a debt that is payable on demand. The bank consequently is exposed to a two-fold peril: it may be called upon at any time to refund its deposits and to cash its notes. It is necessary, therefore, for the banks to keep cash reserves.

V. The social utility of Banks.—Banks afford many important advantages to a country. They economise greatly the use of gold by issuing notes and by the cheque system. Secondly, they collect from numerous depositors small sums which would have otherwise remained idle or would have been used in unproductive expenditure. Many a little makes a mickle, and the whole lot can be employed in producing new wealth. Thus they help the industrial progress of the country. Again, the short period bank loans promote the continuity of industry by enabling manufacturers and merchants to get funds for their operations immediately by discounting their bills instead of waiting for the time when the bills will fall due and be paid by the debtors. Another great advantage is that commercial banks lend freely to capable business-men thereby affording an opportunity to extend their business even if they have no capital of their own. Last but not least is the possibility of conducting large foreign trade with a small amount of metallic money by the foreign exchange operations of banks.

VI. The Advantages of Credit:—Professor Leroy-Beaulieu points out the following advantages of credit:—

(1) The transfer of capital effected by credit ordinarily results in a better use of this capital by the borrower (and by society) than would have been made by the lender.

(2) By placing capital in the hands of those persons who are able to make a better use of it than those who accumulate it by saving, credit enables the former to give the latter, in return for the relinquishment of their funds, a share in the results of this better use of capital. Thus credit makes saving more advantageous and contributes to the growth of capital.

(3) By substituting simpler methods of payment, and using more effective and cheaper kinds of capital than money, credit permits of transacting a vaster bulk of business with much less money. As money is a costly instru-

ment of exchange, the economy of money permits a nation to increase its productive capital.

VII. Credit and prices.—There is a keen controversy among economists as to the effect of credit on prices. Walker and his followers think it has no influence, while Mill holds that it influences prices to the same extent and in the same way as money. He thinks that credit is virtually purchasing power, and so credit has the same effect as money. The truth however lies midway between the propositions of both. Money is purchasing and to the same extent liquidating power. Credit is purchasing power but not liquidating to the same extent. A certain quantity of money must be kept as a reserve to serve as a basis for credit transactions. This amount is therefore held back from circulation. Credit tends to raise prices by increasing purchasing power, while the reserve tends to lower prices by withdrawing metallic money from circulation. The amount of credit is greater than the amount of the reserve; and so the net result is that credit raises prices to a certain extent but not to the same extent as is done by the same amount of metallic money. Taussig, however, holds that in some cases credit only postpones the use of money without serving as complete substitute for money, while in many cases it does so and affect prices as much as specie would.

VIII. Can Credit create capital ?

Mr. Macleod thinks that credit does create new capital. But this view is erroneous. The misconception arises out of the fact that when a bank lends money, it gives to the borrower a certain amount of money in the form of notes which he can use, and at the same time credits the lent amount into the list of his assets as capital. Thus it appears that the amount has been doubled. But it is clear from the national point of view, that new capital is not created by the mere fact of issuing notes, as the borrower of capital can not negotiate the notes until some one will give him money or goods in exchange for it. The

notes only give him the possibility of obtaining other capital instead of that which he has relinquished. As soon as, on the other hand, some one accepts the notes from the borrower he becomes the *Creditor* of the bank to that amount which it has lent in the form of notes.

But while considering the advantages, we must not lose sight of one great defect in credit. This may be considered in two ways. In the first place if people have resort to the system of credit *for productive purposes* *e. g.* to invest in some trade, they, having other's money in their hands, sometimes make reckless speculations, and having little capital of their own to lose, squander other's money in rash speculative enterprises. If on the other hand they borrow capital for *consumptive purposes*, *e. g.* to meet marriage expenses &c., they often become recklessly extravagant and this often leads to fraud and dishonesty.

CHAPTER VI.

INTERNATIONAL TRADE.

I. The Advantages:—The advantages of international trade are similar to those resulting from personal and domestic exchange. These advantages have been considered from two precisely opposite points of view.

A. From the point of view of the Classical Economists:

The classical economists consider only *imports*. They regard importation as the object of international trade. Exports are the price paid for the imports. The less we give in exchange for what we want—so reason the classical economist—the more profitable is the transaction.

B. According to the Protectionists or according to the public opinion.

According to this, the advantages of international trade must be considered from the view point of *exports*.

Exports, it is held, constitute the real profits of international trade. Imports must be regarded only as a necessary evil. Exportation means increased wealth, importation means expense. *The surplus of receipts over expenditures is the advantage.*

Both of these opposite points of view are false. A great country cannot be likened to a person carrying on trade solely as a means of procuring what he needs. Inversely, the second point of view, which likens a great nation to a storekeeper who buys only in order to sell again, is no less erroneous.

In fact, the advantages of international trade are not susceptible of arithmetical calculation; they can not be measured in money. The following are the advantages of importation and exportation:—

A. Advantages of Importation.

(i) *Additional well-being*, whenever we have to do with imported goods which a country, because of its soil or its climate, would not have produced within its borders. Without international commerce, England would have no wine, U. States no tea or coffee, France no copper, and Norway would have no salt.

(ii) *Economy of labour*. This is true whenever wealth is imported that could be produced at home only at a higher cost than abroad; e. g., wheat imported from India. It may also be to a nation's gain to obtain certain goods by importation even though it may be capable of producing them within its own borders, *under more favourable conditions than the exporting country*. But this is true only when it devotes itself to the production of goods for which its superiority is greatest. It is best, for example, for a physician who is also an expert gardener, to devote all his time to his patients and entrust his garden to a gardener.

(iii) International commerce provides a kind of insurance against famines, effects of the failure of crops and against a multitude of economic misfortunes.

B. *Advantages of Exportation.*

(i) It utilizes natural resources and productive forces which, if there were no outlet for them, would be superabundant and therefore partially useless, *e. g.*, gums and nitrates in Peru, gold in California.

* (ii) It develops a nation's industry by creating world-wide markets for goods. The extent of the division of labour and the progress of large scale production are proportionate to the size of the market.

II. Disadvantages :—

(i) Although international trade economizes a certain amount of labour, our modern society having been based on the division of labour, *it can not do it without* throwing a certain class of labourers out of employment. If United States, for example, increases its import of cotton goods from England by \$20,000,000, it is advantageous to the country provided they are obtained at a smaller cost; but it is disadvantageous to American cotton labourers. Even if this increased import may give rise to a counter-current of exports, and English cotton manufacturers may be paid for with American cereals or cattle, the value of English cotton goods may be lower than that of the American cotton which they supplant. Perhaps Americans could not produce \$2,000,000 worth of cotton goods for less than 30,000,000. To balance this amount of English imports, Americans will export cereals amounting to only \$20,000,000. Thus it means a diminution of home production of \$10,000,000 and a corresponding reduction in the amount of American labour required.

Again, the owners of American cotton mills, unable to change their buildings into wheat farms or pasture lands, would lose the capital invested in these factories. Thus the consequence is likely to be ruin for the employer and idleness and poverty for the employees.

(ii) Exportations also may have undesirable effects. Countries which regularly export cereals may ultimately

impoverish their soil and rob it of all the fertile properties it possesses.

(iii) There is a third disadvantage in the specialisation of industry of which foreign trade is but one form. It increases the chance of over-production. It is more difficult to gauge the amount of product required in a widely extended market; and causes like wars and failure of crops may produce serious effects.

III. The Attenuating Circumstances.—International trade like machinery may ultimately cause an increase in the amount of work which it began by diminishing, in two ways:—

(a) The fall in prices resulting from free-trade will cause *an increase in consumption* and consequently an increase in production. What the people save in the decreased prices of cotton goods, they will perhaps use to purchase goods of home production. And even if the savings are used to buy foreign goods, it will nevertheless be necessary to pay for this larger bulk of imports by exporting larger quantities of American gold.

(b) The fall in prices diminishes the expenditure of consumers and they are enabled to devote the amount thus saved to new or old productive enterprises. This means the employment of additional labour.

IV. The Balance of Trade. The term *balance of trade* designates the relation between imports and exports. Statistics show that the imports and exports of a country are rarely equal. For example, the United States has, since 1893, always imported less than it exported. The average annual excess amounts to more than \$566,000,000. France, on the other hand, is an example of opposite state of affairs. The annual excess of imports over exports averages \$113,000,000. If we consider the case of England, statistics are still more surprising. The annual excess of imports over exports averages \$1,200,000,000. In other words, one year of foreign commerce at this rate would

suffice to drain the country twice of all its metallic money; for U. K. has but \$600,000,000 in coin of all kinds. Yet this money is by no means drained from the country by foreign trade. On the contrary, the imports of precious metals here surpass the exports.

What, then, is the key to the enigma? simply this: In order to ascertain whether the foreign trade of a country is in equilibrium, we must consider not only the balance of its imports and exports,—as the public is accustomed of doing,—but the balance of its *credits* and its *debits*.

Besides exports and imports there are numerous other international claims which are termed *invisible imports and exports*, out of which the following three stand out prominently in importance:—

(a) *The cost of transportation of exported goods i. e., freight and insurance.* If the exporting country has charge of the transportation of its goods, it has a claim on other countries that certainly will not be counted among its exports. On this account England has large claims against other nations, averaging annually to more than \$,440,000,000.

(b) *The interest on capital invested abroad.*—Rich and, as a rule, old countries invest abroad a large part of their savings, and for this reason receive each year large amounts of money or of commodities from foreign nations.

But it must also be observed that whenever these countries issue a loan and as long as their loan is not fully subscribed, they become for that time creditors of the countries which take up the loans.

(c) *The expenses incurred by foreigners living in the country.* As the money spent by these foreign visitors is drawn from their own estates or from the capital invested at home, all countries which are resorted to by foreigners are constantly receiving large sums of money from abroad. Statistics does not show in imports the amount in the

pockets of *absentees* or sent to them through the mails. France is a good example. Its receipts average annually to \$123,000,000.

Note.—There are other kinds of credits and debits besides those indicated ; for example :—

(d) *Bankers commissions*, whenever bankers extend their business to foreign countries. Stock exchange cities like London, Paris and Berlin receive orders and transact business for all countries. As this is not done gratuitously, these countries become to some extent creditor of other countries.

(e) *The sale of ships*. Purchased ships do not figure on the custom-house books either as imports or exports. England builds ships for many other countries and on this score too is creditor for large amounts. In some years more than 1,000,000 tons of ships, mostly steam vessels, are launched from the great ship yards at Belfast and on the rivers Clyde, Wear, Tees and Tyne.

We must be careful, however, not to reckon the *profits* of exporters under this head, though many treatises on political economy do this. These profits are already included in the value of exports, and to count them again would be a mistake. The value of exports is determined by the customs officials according to the current prices of commodities, and this price of course covers the profits of manufacturers and dealers.

We must therefore conclude that the foreign trade of a country is in equilibrium not when exports and imports are equal in value (which never happens), but when its credits and its debits are equal.

Thus we see that of the amount of payment falling on one side or the other in a given period, only the balance will require to be paid in money while the equivalent portions on each side would be cancelled against each other by importation and exportation of goods. The metallic money of a country may not be drained out of it by foreign commerce. Statistics, as well as simple observation, show that money plays only a small part—usually less than 10 per cent of the total amount—in international trade.

V. How the Balance of Trade is Maintained.

Even if a nation buys more abroad than it sells and has no other claims on foreign nations to restore the balance of accounts, or its rich citizens practice absenteeism so that it is compelled to have its metallic money drained to other countries, there are certain counteracting forces which operate very effectively and tend to obviate this evil:—

Counteracting forces.

(a) *The influence of Bills of Exchange.*

Persons who have payments to make abroad endeavour to settle them by bills of exchange payable in these foreign countries and not by exportation of money. But if a country owes more abroad than foreign nations owe her, the demand for foreign bills of exchange will be higher than the supply and they will be *at a premium*. This premium, it is plain, bringing profit to all dealers who have claims on foreign nations and have supply of these bills, will stimulate the exportation of goods to foreign countries. Inversely the necessity to pay this premium and the consequently disadvantageous situation of all importers will discourage imports. The results will be an increase of exports and a decrease of imports,—precisely the remedy best suited to the situation.

(b) *The influence of Prices.*

Let us admit that the inequality of debits and credits involves a continual drain of money from a country. The flight and consequently scarcity of money causes a fall in prices; and although a fall in prices has some disadvantages; yet in this particular case it has the advantage of stimulating purchases by foreigners, since trade always seeks the markets in which one can buy cheapest. At the same time the amount of purchase made abroad by the debtor nation will of course decrease, because commodities can now be bought quite as cheaply at home. It is a well known fact that goods are not taken away from dear markets to cheap markets, any more than water runs up hill. In short, the situation just described tends to

encourage exportation and discourage importation—securing the same beneficent result as that discussed in the preceding paragraph.

(c) *The influence of Paper Money.*

If the bankrupt country, from which metallic money has been drained, issues paper money to take its place, the result is the same. Metallic money will then be at a premium; the greater the amount of paper money, the higher the premium. The producers of the country find it profitable to sell abroad, because then they are paid in metallic money, which brings a premium and thus involves additional profit. Hence this condition of affairs encourages increased exportation. Importation on the other hand, is slackened, because foreign producers do not like to sell in a country having a depreciated paper money; or, if they do sell, they raise their prices, and this, again, restricts sales.

To sum up then: there is a sort of automatism in the balance of accounts that tends to restore the equilibrium whenever it is disturbed. The current of trade can not for ever continue in one direction, sooner or later it must change; and after metallic money has been taken out of a country, there are natural forces, called *Economic Harmonies* which tend to bring it back again.

PART VI.

CHAPTER I.

CO - O P E R A T I O N .

In its etymological sense the word co-operation simply means "working together;" but it is now employed in a more definite, specific sense to mean "voluntary associations of producers or consumers in which the members are directly interested in the success of the undertaking and share in the profits." For example, in *productive co-operation*, the workmen combine their own capital, purchase their own plant, and manage their own industrial affairs, in their own way, at their own risk, sharing profit or loss as the case may be. Some economists regard this system as *industrial democracy*. Industrial democracy means self rule, self-control, self-direction, by the workmen in their efforts to gain a livelihood. This is achieved in *pure co-operation*.

The principal varieties of co-operative schemes are (1) Productive co-operation (2) Co-operative consumption or Distributive co-operation. (3) Co-operative credit and (4) Building Associations.

NOTE.—In distributive co-operation, the word "distributive" is used not in its ordinary economic sense, but in the sense in which the merchant's business is spoken of as distributive.

I.—Some characteristic features of all Co-operative Schemes.

1. They all aim at the economic emancipation of the middle men and learn to suffice unto themselves. Consumers' societies help consumers to get along without retail shop keepers by enabling them to purchase goods directly from the producers or better still by themselves producing whatever they need. Credit associations enable borrowers to escape the clutches of usurious money lenders by obtaining for them directly the capital that they need, or even by helping them to create this capital for them-

selves by means of ingenious schemes for collective saving and mutual assistance. Productive associations enable workers to dispense with employers, by making commodities under their own guidances and selling them directly to the public.

2. They all aim at the substitution of "solidarity" for "competition," and of the co-operative motto, "Each for all," for the individual device "Everybody for himself." These associations don't compete with each other.

8. They all aim not at abolishing private property, but at making it more general by facilitating the acquisition of private capital either by saving or borrowing, and to create co-operative property or *collective ownership* of stores, banks, workshops, factories and houses.

4. They all aim not to suppress capital, but to *deprive it of its controlling influence in production* and to withhold that part of the product which capital appropriates in the form of profits and dividends. Many co-operative societies are expressly forbidden by their constitutions to make any profits, or are obliged to pay them into a reserve fund. Other associations distribute profits among their members in proportion to their purchases (when the members are purchasing members) or in proportion to their labour (when they are employees), but never in proportion to their shares *i. e.*, to the capital they furnish.

5. All co-operative associations possess great educative value, because they teach their members to develop their energy and ability to the utmost degree, to help others by helping themselves. As regards the satisfaction of legitimate wants (not the pursuit of profits) as the purpose of economic activity, to raise the moral level of economic relations by suppressing advertisement, trickery, food adulteration &c., and to abolish all methods by which men can exploit one another, as well as all the causes of social conflict.

II. The benefits expected from Co-operative schemes:—

A. *For the labourer.*

1. To secure for the labourers the profits that go to the entrepreneur.

2. To secure for the labourers the opportunity to produce independently of the will of the employer.

3. To improve the character of the workmen by making him depend on his own exertions.

B. *For the employer.*

4. To do away with strikes.

5. To increase the industry and carefulness of the labourer.

6. To encourage frugality.

III. Varieties :—

A. Productive Co-operation.

(i) This scheme contemplates the abdication and gradual disappearance of the employer, by transferring all the stock of an enterprise to the labourers themselves. The wage earners are to try to raise their own capital and to do the work of undertaking the business. J. S. Mill's example is a good illustration. Fourteen workmen after asking Government in vain for a loan of 300,000, francs, started on their own account a Piano manufactory in Paris. They had between them a capital of 2,000 francs for buying tools and materials; they worked for two months entirely without wages; after two months they got payment for their first order and in less than 20 years their capital was 6520.

(ii) **Short History.**—The first co-operative society for production was founded in France in 1834 by Buches, a French publicist. At the close of the Revolution of 1848, the movement assumed great vigour, and more than two hundred labour societies for production were founded in France, particularly in Paris. But only four of them survived. There was however a temporary recrudescence

of the movement in 1866, and in recent years the number of these organizations has increased considerably. In 1902 there were 323 such societies, some of which were very prosperous.

In U. S. the first such association was Boston Tailor's Association Union, founded in 1849 but did not last long. The coopers of Minneapolis have best known American co-operative associations. Boots and shoes companies are also among successful societies for Productive Co-operation there. Creameries and dairies have also had considerable development in the United States.

In Great Britain in 1902 there were 136 Productive societies for farming.

On the whole, these societies have not been successful for the following reasons :—

(iii) Obstacles in Co-operative Production.

(a) *Lack of economic education.* Labourers can not compete with a trained business man—the employer. They do not know enough to choose a man of ability from amongst themselves and even if they did, they would not allow him a share, for his mental superiority, from the proceeds, proportionate to the value of his services.

(b) *Want of capital.*—They may do away with the capitalist but can not get along without capital; and large scale production demands capital in larger and larger amounts. How can the labourers raise this capital? Ought the government to lend it? The experiment was tried in France in 1848 and \$400,000 were distributed for the purpose but there was little success.

(c) *They tend to re-establish the very institutions which they seek to eliminate,* namely the class of employers and the wage system. Too often when co-operative associations have proved useful, they close their ranks, refuse to accept new members, and engage hired workmen (wage earners.)

These obstacles may be, however, avoided by first traversing a stage of preparation ; this preparation could be provided in these ways :—

(1) By Profit Sharing.

(2) By Trades Unions.

(3) By Consumers Co-operative Societies.

Note (A) **Profit Sharing** is that method of remunerating the labour which aims to do away with the above disadvantages of the wages system by making the wage earner a kind of partner with the employer. Profits instead of falling exclusively to the latter, are divided, according to some system of sharing, between employer and employees, the workmen thus receiving in addition to their regular wages if the enterprise has been successful.

This profit arises from a reduction in the waste of materials, an improvement in the work done, economy in supervision, avoidance of strikes, a greater ability in the staff and from the enlistment, on the employer's behalf of the men's best faculties.

(ii) *The objects of Profit Sharing ;—*

(a) To reconcile labour and capital, and to increase the labourer's dignity by transforming him from a mere productive instrument into a partner.

(b) To increase the productivity of labour by stimulating the workman's activity, furnishing him an incentive for faithful work, and leading him to a direct, personal interest in the success of the enterprise in which he is employed.

(c) To increase the labourer's income by adding to his ordinary wages (which continue to be devoted to his running expenses) an annual dividend that can be saved or used to meet extraordinary expenses.

(d) To avoid loss of employment by attaching more closely and more permanently to the enterprise in which he is employed.

(iii) Its difficulties.

(a) Smallness of the amount divided without unduly diminishing the employer's interests in production.

(b) Suspicion as to the employer's good faith.

(c) Difficulty of the apportioning losses without reducing the labourer's dividend to the vanishing point.

The institution of profit sharing is however not gaining much ground, because it is subject to the disfavour which now attaches to all forms of wage system, which tend to strengthen the bonds between employer and employce. Labour and capital are each in quest of greater independence of the other.

For Trade Unions please see Chapter on Labour.

B. Co-operative Consumption or Distributive Co-operation.

These are associations in which a number of persons unite to make their purchases jointly, and thus obtain the advantages of buying at wholesale rates. The system has achieved immense success in Great Britain and is now fast developing in the United States of America.

(ii) Short History.—Robert Owen appears to have been the inventor of this kind of associations. But their development is most closely connected with the history of the celebrated Rochdale Equitable Pioneers, founded in 1844. More than one fifth of the whole British population now purchases its goods, wholly or partly, at the stores of co-operative associations. The members of these associations meet annually in a congress, publish periodicals, newspapers, and constitute a power in the nation. Many of these societies are grouped into large federations which have their own fleets of merchant-ships trading with all parts of the world. These societies do not limit themselves entirely to commerce but engage in production and banking also.

(iii) *Characteristic features of Rochdale Society*—Most consumer's associations are patternised after the so called Rochdale type which is characterized by these features :—

(a) Sales for cash only. .

(b) Sales, not at the cost price, but at the customary retail price, thus bringing a profit.

(c) The distribution of a large part of profits among members, according to the amount of purchases they have made, and not according to the capital they have subscribed for which a fixed rate of interest is paid.

(d) The use of certain part of the profits for social and educational purposes. "The society," says Mill, "has libraries, schools, dispensaries and every kind of institution connected with the association and has regenerated a whole district."

(iv) *The direct advantages of these Societies.*

(1) Economy in the cost of living.

(2) Putting a stop to the adulteration of goods and thus providing healthful and more abundant food.

(3) Abolition of advertisement and trickery &c., thus raising the ethical standard of business life.

(v) Should the movement continue to develop its *ultimate effects* would be :—

(1) The gradual elimination of traders and the class of business intermediaries.

(2) A decrease in the number and profits of individual concerns and stock companies (to the extent that these societies devote themselves to production).

(3) A decrease in the number of large fortunes and an increase in that of small ones built up by co-operative saving.

(4) The perfect *adjustment of production and distribution*, and the suppression of crises and the loss of work for labourers resulting from them.

C. Co-operative Credit Associations.—These associations are simply popular banks designed to receive money from the people to return them in the form of loans. They have been called "Profit-Savings Banks." They also borrow capital for their members from outside on the security of all the members' property.

(ii) **Short History.**—These societies were founded by Schulze-Delitzsh and Raiffeisen in Germany. The former worked among the small artisans and tradesmen of the town, and the latter among the peasants.

(iii) **Method of working.**—A bank is started by some select persons in a locality subscribing the capital among themselves, so that gradually considerable capital is built up, which can be lent to the members of the society. In addition to this, loan is taken from outside on the security of all members' property, so that excellent terms can be obtained. Loans are only given to members who are known persons and of good character; loans are advanced for productive purposes generally,

(iv) *Chief features of these societies.*

(a) Liability is unlimited, so that the managers look very carefully after the loans.

(b) Profits are paid only in part. The rest forms a reserve fund.

(v) *Advantages :—*

(1) These societies enable the poor men, who individually possessless security, to borrow on good terms without falling into the hands of the money lender.

(2) These societies impart a steady educative influence in matters of thrift, association, self-help etc., and tend to develop high forms both of individual capacity, of public life and national character.

(3) People practise industry and economy with a desire to become a member of such societies.

NOTE.—The success of these societies has been phenomenal. Even in India they have done much good.

D. Building Associations.—Corresponding to the Co-operative Credit Societies, there are Building Associations in America and England. They are really co-operative credit societies to give loans to their members to enable them to build or buy houses, the property being mortgaged to the association till the amount advanced is fully repaid.

(i) **Short History.**—The first building society in England was organized in 1718, although societies of this sort were not recognized by law until 1836. By the year 1898, there were some 2500 of them in England, with aggregate assets of nearly \$300,000,000. The first such association in America was organized at Frankford in 1831. In 1893, there were nearly 6000 such associations in United States with nearly 2,000,000 shareholders and assets of over \$450,000,000.

(iii) **Method of working.**—The funds of these societies are used by the depositors themselves in their own interests, and not placed at the service of business men and corporations. Every member has a voice in the management of the association and shares in the profits. A board of managers has charge of supervising the business of the association. They issue fraction of the capital stock, usually one tenth in what is known as a *series* and require that it be paid in monthly instalments, commonly called *dues* at a low interest. Whenever the monthly payments, *plus* the accumulated profits, equal the face value of the shares the series is retired. The money obtained by the association is lent to shareholders who desire to buy or build homes. No member can borrow more than the face value of his shares.

CHAPTER II.

MONOPOLY.

The word 'monopoly,' as opposed to 'competition on the side of production' literally means 'sale by one man.'

Definition.—Monopoly means ‘that substantial unity of action, on the part of one or more persons engaged in some kind of business, which gives exclusive control, more particularly although not solely, with respect to price.’

Classifications.—Many classifications of monopolies have been made by different writers and still others might be made. But the following classification which both explains the origin of different monopolies and suggests their real nature is very helpful.

(A) Social Monopolies :—

1. *General Welfare Monopolies* ;—Patents, Copy rights, Trade marks, Public consumption monopolies and Fiscal monopolies.

2. *Special privilege monopolies* :—Those based on public favoritism and those based on private favoritism.

(B) Natural monopolies.

1. *Those arising from limitation of supply of raw material.*

2. *Those arising from peculiar properties inherent in the business.*

3. *Those arising from secrecy.*

(A) Social monopolies.—Businesses are social monopolies when they are made monopolies not by their own inherent properties but either by legislative enactment or by forming so close a connection with great and natural monopolies that they partake of the nature of the latter.

In old times kings and queens frequently granted exclusive business privileges to favoured persons and permitted no one except those named to engage in such undertaking. Such monopolies, however became so odious that sovereigns were compelled to cease granting them. Go-

vernments still create exclusive privileges by patent and copy right laws but they do so on behalf of the general public. Authors and inventors are given exclusive rights over their production for a limited period. These monopolies have perhaps justified themselves through stimulus which they have given to invention and authorship.

The trade mark is a legal monopoly similar to the patent and copy right. In connection with lavished advertising trade marks in recent days have been made the basis of enormous profits. Trade marks are important chiefly in giving a solid basis to what is known as the good will of a business. A manufacturer who acquires a reputation because of the quality of his products may adopt a trade mark to distinguish them from others.

Public consumption monopolies and fiscal monopolies are distinguished from one another only by the object which the government has in view in establishing them. If the government manages for itself or grants to another a monopoly of the liquor traffic with the object of regulating the consumption, the monopoly is a public consumption monopoly. If on the other hand the chief object is not regulation but income, the monopoly is a fiscal monopoly. Often the two objects are so blended that it is difficult or impossible to name the resulting monopoly.

Special privilege monopoly.—Our classification names two kinds of special privilege monopolies. Those monopolies which are due to special tariff advantages or to other legislation are rightly said to be based on public favouritism. The other class of special privilege monopolies consists of those which grow up through special favours granted by other monopolies specially natural monopolies, such as railways.

(B) Natural monopolies.—Natural monopolies are those which depend for their existence on natural forces as distinguished from social arrangements. They grow up independently of man's will and desire, and sometimes even in direct apposition to it.

Of the first kind are the monopolies which depend upon some physical limitation in the sources of their supply. Of this type are businesses using unique mineral springs or mountain passes or controlling the whole area from which certain commodities such as diamonds in Africa are obtained.

By far the most important of all the monopolies are natural monopolies of the second class, chief among which are the following: wagon roads and streets, canals, docks, bridges, ferries, water ways, harbours, light houses, railways, telegraphs, telephones, the post office, electric-lighting, water works, gas works &c., &c., &c. Whenever there is a decided increment in gain resulting from combination we have a tendency to monopoly which will overcome all obstacles. This increment of gain, which is the cause of monopoly, is always present in businesses that occupy peculiarly favourable spots or lines of land, and that furnish services or commodities which must be in connection with the plan. This may be said to be the law of natural monopolies.

Determination of Monopoly price.—First of all we may say that monopoly value like any other value is determined by the relation between demand and supply, and that demand is here as elsewhere determined by the marginal utility. But the supply is not determined as under competition by the cost of production, but by the desire of the monopolist to secure the maximum of revenue possible in the existing state of demand. In other words, the monopolist, freed from competition, and governed only by demand, is able to adjust supply to demand in such a way that the price will stand at the point of highest net return. In determining what price shall be fixed and what quantity supplied—in other words what is the point of highest net return—the monopolist is influenced by the following facts:—

1. Every increase in the supply of his monopolised product will result in lowering the marginal utility and

hence the demand price of the product, while every decrease in the supply will result in a higher marginal utility and hence a higher price.

2. Of the expenses of production there are some that vary in almost regular proportion with the variation in supply. Thus if the product is doubled the cost of raw material will be just about double. Such expenses are called variable expenses.

3. The supplementary costs will remain the same no matter what may be the amount of the product. These, called the fixed expenses, would include the cost of plant, salary of superintendent, interest on bonds &c.

It follows from the above principles that the monopolist, since he is seeking the maximum net revenue from his business, will pay his attention to fixed charges in establishing the price of the product but will consider only the variable expenses in connection with the probable demand for his goods at various prices.

An illustration.—Let us illustrate the above in the case of a commodity obeying the law of constant returns.

Price per unit.	No. of sales.	Total earnings.	Total expenses.	Net revenue.
As.				
10	6,00,000	3,75,000	2,75,000	1,00,000
9	8,00,000	4,50,000	3,25,000	1,25,000
8	12,00,000	6,00,000	4,12,500	1,75,000
7	18,00,000	7,87,500	5,75,000	2,12,500
6	25,00,000	7,37,500	7,50,000	1,87,500
5	35,00,000	10,93,758	10,00,000	93,750
4	55,00,000	13,75,000	15,00,000	1,25,000

In the illustration the monopoly price will be fixed at As. 7 per unit, while under competition it would fall to something between As. 5 and 4 per unit.

Effect of a Tax.—We have seen that fixed expenses have no influence in determining the price. If therefore a fixed tax were to be levied upon a monopoly it would not result in an increase of price. On the other hand a variable tax, for instance a tax of one cent per unit, would result in this case in raising the monopoly price. Thus though the monopoly finds its profits greatly curtailed by such a tax, consumers would be compelled to pay one cent more per unit for the monopoly product. The possible advantage that society might draw from the tax would therefore be wholly or in part upset by the increased cost of the commodity.

Problems raised by monopolies.—The problem of monopolies has become one of the most important social problems in the United States at the present day. There are thinkers who say that monopolies are the cause of many evils and advocate public ownership of monopolies. The advantages claimed for public ownership are:—

1. *Increase of public prosperity.* If monopolies are owned by government they will be worked with a view to the advantage of the consumers *i. e.*, of the public. Charges may be placed so low that the price will simply cover costs without allowing for profits or a profit may be derived from the industries and this used to lower taxes or to benefit the people in other ways. Thus there will be a general diffusion among the community of the great incomes now reaped by the private monopolists and this will tend to prevent an undue concentration of wealth while at the same time promoting general prosperity.

2. *Economy.* If the government own monopolies, the enormous waste of war in attempted competition in the field of natural monopolies may be avoided. Hence public ownership may be more economical than private ownership. Moreover a better management is likely to result and experience has shown that improvements are more readily introduced by government than private companies.

3. *Purification of Politics.* American politics has got much corrupted by monopolies. Not a year passes that the country is not shamed by the disclosure of bribery and corruption in the granting of privilege or in order to free a monopoly from duty or to escape from deserved punishment.

Jevon's Criteria.—Jevons, however, says that there are certain principles or characteristics by which it can be judged what sort of monopolies the government of a country may undertake to manage safely.

1. The business should be of a routine nature, *e. g.*, that of a post office. (2) it should minister to a permanent and widespread public need. (3) it should be of such a nature as to require a relatively small amount of capital in proportion to the amount of business done (4) it should be of such a nature that the technical apparatus required for its successful management may be easily and accurately understood.

To conclude: public sentiment is much in favour of public ownership of the natural monopolies.

CHAPTER III.

TAXATION.

To meet the expenditure essential for carrying out governmental functions, it becomes necessary for the state to raise taxes. Other sources of income to the state *viz.*, government property, fines and penalties, fees and business undertakings *e. g.*, (state-railways) etc., do not generally yield sufficient revenue. By far the larger part of the public revenues is drawn from the proceeds of taxation.

I. Definition:—

A tax is a necessary contribution made to government for the purpose of meeting the expenditure essential to carrying out the governmental functions.

II. Theories.—With reference to the equities of contribution, there are different theories of taxations.

(i) *The Physiocratic theory.* According to this theory the whole revenue of the state should be got by land taxes; because the Physiocrats held that land alone, of all the agents of production, yields a return above the cost of production.

(ii) *The Social Dividend theory.* According to this theory, subject of every state should contribute to the government in proportion to the benefit they derive from the protection of the state.

(iii) *A group of theories,* according to which people should contribute according to their ability.

(iv) *The purely Economic theory,* that the best tax is one which is most easily assessed and collected, and at the same time is most conducive to the public interests.

The theory more generally accepted today is that, taxation should be proportioned to "faculty" or *ability to pay*. *Ability* may be measured by (1) *consumption*; but we must note that the consumption of the poor is out of all proportion to their ability to bear the burdens of the state; (2) *property*; but property differs widely in its productiveness, and, moreover, many persons with little property have large incomes and therefore great ability to bear taxation; (3) *income*; levying of taxes on income, with variations to correct manifest cases of inequalities, approaches nearly to ideal taxation, though incomes differ in permanence and security, and equal incomes often have to support very unequal numbers of persons. A progressive tax on incomes may fairly be said to attain justice.

III. Adam Smith's Canons of Taxation.

There are four celebrated canons—of equality, certainty, convenience and economy—given by Adam Smith. These principles, says the old economist, should govern the raising of taxes.

A. *Equality.*

The subject of every state should contribute in proportion to their means and the benefit which they enjoy under the protection of the state. This principle of equality means equality of sacrifice. "No tax is a just tax unless it leaves individuals in the same relative position in which it found them."

B. *Certainty.*

A tax ought to be certain. There should be no uncertainty with regard to the amount to be paid, the time and manner of payment &c. The contributor should clearly know what he has to pay.

C. *Convenience.*

Taxes should be levied at a time and in a manner most convenient to the taxed, *e. g.*, taxes can readily be paid after the sale of crops, than when they are ripe but not cut.

D. *Economy.*

The state ought to obtain as much as possible of the whole amount of taxes which is really levied from the taxpayer. There should be as much economy as possible in the collection of these taxes. "The taxes should be so contrived as both to take out and keep out of the pockets of the contributor as little as possible over and above what it brings into the public treasury." They should be arranged in such a way that the efficiency of land, labour and capital, may not be decreased.

Criticism:—

The Canons Nos. 2, 3 and 4 are generally accepted. But with regard to the first canon, severe criticism has been put forward. "In proportion to their means" is an ambiguous term. How to decide whether one person's means are or are not equal to another's. A and B both get Rs. 100 per mensem from their employers. A has a

family, consisting of 5 souls to maintain, while B has merely to spend on himself. It would be a great injustice if a tax of equal amount is levied from both.

If the canon means that they should contribute in proportion to the benefit derived under the protection of the state, even then the family man shall have to pay most. Weak and poor men need more protection than the strong and the rich.

There is however one way of obtaining equality: by allowing to one class, certain advantages which may compensate for disadvantages which it may suffer with regard to some other taxes.

IV.—Different kinds of taxation.

A.—Direct Taxes.

(i) *Definition*:—A direct tax is that which is demanded from the very persons who it is intended or desired should pay it (J. S. Mill.)

A direct tax is really paid by the person from whom it is levied—Fawcett.

A direct tax is either on income or expenditure.

(ii) *Examples of direct taxes*;—Income tax, land tax, tax on property &c., are good examples of taxes on income; while tax on dogs, the wheel-tax, tax on horses &c., are examples of taxes on expenditure.

(iii) *Advantages of Direct Taxation.*

(a) the great advantages of direct taxation are of simplicity and economy of collection.

(b) the person taxed knows exactly how much he has to pay.

B.—Indirect taxes.

(i) *Definition*:—Indirect taxes are those which are demanded from one person in the expectation and inten-

tion that he shall indemnify himself at the expense of another. They are taxes levied upon the people indirectly through consumable commodities.

(ii) *Examples* :—Excise or customs duties are the chief examples of indirect taxes.

(iii) *Advantages* :—

(a) the tax can be made to reach all consumers.

(b) the tax is disguised. People pay it without being conscious of it.

(iv) *Disadvantages*.

(a) This tax is very costly to collect.

(b) It injures trade and industry by raising the price of the commodity taxed and thus causing a diminution in consumption and production.

(c) It is not easy for the government to raise the tax, as the trades protest.

(d) It inflicts an inconvenience on trade when taxes are levied during any stage of production.

NOTE.—A **Proportional tax** is that in which the ratio is uniform on all income and quantity. This principle possesses the advantage of simplicity and easy application. A **Progressive tax** is that in which a graduated scale is adopted, the rate of taxation increasing as the amount of income increases.

V.—Practical Illustrations.

A. Income-Tax.—This tax possesses the evident advantage of simplicity. Each man's contribution to the state depends on the amount of his income. This tax is now generally recognized to be the best normal source of income. There are, however, certain objections raised against this tax :—

Objections :—

(i) In certain cases this tax may discourage industry. The harder a man works the more he has to pay.

(ii) It is impossible to discover the exact incomes of many persons. If the tax is assessed on the returns made by the persons to be taxed, a premium is evidently given to dishonesty. Attempts to prevent falsification are apt to be resented.

(iii) If the tax is not carefully regulated, it may contravene the principle of equality of sacrifice. For example, a tax of 5 per cent. on incomes means much more sacrifice to a man drawing Rs. 50 p. m. than to one drawing Rs. 5,000 per mensem.

In order to avoid this, the tax may be made progressive on larger incomes or any system of exemptions and modifications may be adopted according to the prevailing ideas of equity or expediency.

In India, the progressive or graduated principle is adopted in the assessment of this tax. All incomes of less than Rs. 500 a year are exempted. Incomes from land and agriculture are also exempted. Incomes of less than Rs. 2,000 pay 4 pias per rupee, while those above 2,000 pay 5 pias.

B. Land Tax.—In many respects this tax is perhaps the best tax. With economic advancement of a country, the value of its land will rapidly increase, and the "unearned increment" would be quite sufficient to defray all the expenses of government. There would be no need of raising other taxes.

In India, however, this "unearned increment" is still the share of the land holder. For a fuller treatment of this subject see "Land Revenue" in Indian economics.

C. House Tax.—Taxes assessed on the value of dwellings are open to the serious objection that they discourage a most beneficial form of expenditure. In order that the poor may be better housed no house tax should be

levied on the poorer classes. This tax presents a peculiar difficulty in India. Under the Hindu joint family system a house is owned by the family as a whole. Yet it is the principal source of income in Bengal, Burma and Madras. In Madras, $8\frac{1}{2}$ per cent of the gross annual rental is charged.

D. Death duties.—It is a matter of varied opinion whether a tax should be paid on the inheritance of a wife or young child. In the case of these, the death generally involves a serious pecuniary loss, and the time is specially inappropriate for imposing an additional burden. On the other hand, an inheritance passing to an adult son, or to a more distant relation or friend, may reasonably be charged with a contribution to the state.

NOTE:—Heavy death duties lead to evasions by means of gifts before death, depriving the state of all share in the property. Property not disposed of by will might reasonably pass altogether to the state when there is no very near relative to inherit.

FINIS.

APPENDIX A.

B. A. EXAMINATION PAPERS.

1889.

1. Define Capital, and mention the main forms in which it exists. Show from the definition that capital does not fulfil its function unless it is consumed. If all capital is consumed "productively" is there no fear of glut of capital being eventually produced?

2. State and explain Ricardo's Theory of Rent and show from this theory that agricultural produce would be no cheaper if all rents were remitted.

1890.

1. What is meant by "the margin of cultivation?" Give an illustration of the manner in which the margin of cultivation varies with the rate of profit in each country. In what sense are the interests of the labourer opposed to those of landlord? Discuss the advantages and disadvantages of large and small farming.

2. What are the functions of money? Enumerate the qualities which the substance selected as money should possess? What are the prominent causes of the present appreciation of Gold and depreciation of Silver?

3. Discuss the following propositions:—

(a) "Wages do not vary with the price of food and with high prices you do not necessarily have high wages." (Sir R. Peel).

(b) "Demand for commodities is not demand for labour." (J. S. Mill).

(c) "Divide the labour, you divide the man." (Ruskin).

- (d) Local rates fall with the greatest severity on the occupiers of houses. (Fawcett).
- (e) The subjects of every state ought to contribute towards the support of government, as nearly as possible, in proportion to their respective abilities." (Adam Smith).

1891.

1 Briefly sketch the systems of land revenue in Bengal, Madras, Bombay, the North-West Oudh.

2 Discuss the three impediments to the improvement of agriculture in India, and give an account of the measures taken by the British Government to remedy these.

3. Define Capital and distinguish between Circulating and Fixed Capital. How has the influx of European capital into India affected its wage receiving class? Does hoarded wealth add to the capital of a country? How do Banks and Joint Stock Companies promote the productive employment of wealth?

4. Distinguish between *the value* and *the price* of a commodity. Supposing that fifty years ago the sovereign was worth eight rupees, while wheat was thirty seers per rupee, and that now the sovereign is worth fifteen rupees, while wheat is sixteen seers per rupee, how has the value of wheat changed? Explain Bi-metallism and give arguments for and against its introduction.

5. Explain Ricardo's Theory of Rent, and the "Margin of Cultivation." Show how it has come about that many of the peasant cultivators of Madras have become petty land-holders by the *ryotwari* settlement. If the Government of India were to remit the whole of its land revenue, would food grains be any cheaper?

6. (a) Explain the nature and objects of Trades Unions, Strikes and Lock-outs. State the fundamental principle of the remedy proposed by Political Economists.

(b) Distinguish between Free Trade and Protection. What section of the American People will be the chief sufferers from the recent increase of their Customs Tariff?

1892.

1. Distinguish between (1) Productive and Unproductive labour, and (2) Fixed and Circulating Capital.

(a) Discuss briefly the comparative productiveness of a school master and a statesman.

(b) What would be the effect of an increase of Fixed Capital at the expense of Circulating Capital?

1. Explain: Value, Price, Rent, Wages.

(a) Why are the laws which determine the price of agricultural produce inapplicable to manufactured produce?

(b) How is rent increased by lowering the margin of cultivation?

(c) Do high prices produce high wages?

3. Explain what is meant by Credit. In what manner does Credit influence the prices? Show that the establishment of credit in India is one of the greatest benefits which England has conferred on this country.

4. Comment briefly on Adam Smith's Four Canons of Taxation. Give the chief arguments for and against an Income-tax.

1893.

1. From what sources does Indian Government draw its revenue? Compare the taxation under British Government with that under the Moghal Empire. What items of the gross revenue are not of the nature of taxation proper? How does the fall of silver affect the Indian Budget?

2. Define the following :—Political Economy, Wealth, Value, Margin of Cultivation, Bills of Exchange, Convertible and Inconvertible Paper Currency.

3. What is the wealth produced by grinding corn at a water mill ? Show how the requisites of production combine this wealth.

4. Show by a carefully worked out example how it may be argued that “a demand for commodities does not increase the amount of labour and capital, but determines the directions in which they will be employed.”

5. State and explain Ricardo's Theory of Rent.

6. What are the causes which produce differences of wages in different employments ?

Point out the action of these laws in the case of a grass-cutter, a clerk and a judge.

1894.

1. What is the subject-matter of Economics ? For what reasons is it more amenable to scientific treatment than other social questions ?

2. What is the Law of Demand ?

Illustrate the use, made by Marshall, of diagrams to elucidate economics by a diagram of the Demand Schedule of a market for ice : suppose the market to be in Calcutta.

What is meant by Elasticity of Demand ?

3. To what extent are we scientifically justified in speaking of land as a Factor of Production ?

State the law of Diminishing Returns.

4. What are the advantages of production on a large scale ? What special advantages, on the other hand, has the small producer ?

5. How is the equilibrium brought about between Supply and Demand? Give an illustration of a temporary equilibrium.

How is normal equilibrium established over a long series of years?

6. What value do Wages tend to equal under conditions of free competition? How far does this apply to the profits of business undertakers?

7. Discuss the economic reasonableness of the demand for a compulsory reduction in the hours of labour.

1895.

1. Distinguish between Wealth, Money, and Capital; between the several kinds of Capital; between Productive and Unproductive Consumption; and between Price, Value in Exchange, and Value in Use.

2. Show that Rent forms no part of the price of produce, and explain what determines Rent when competition is free.

3. Explain the Law of Diminishing Return and the Law of Increasing Return, and show the relations of the one to the other in production.

4. Give an account of the causes which led to the localisation of industries in England. Discuss the advantages and disadvantages of the system. Carefully contrast Joint Stock Companies and Co-operative Associations.

5. Define Market and show the advantages and disadvantages to the community of the extension of a market.

6. Briefly discuss the means of raising the standard of comfort in a community, showing what light Malthus' Theory of Population throws on the subject; and very briefly sketch the history of Workmen's Unions in Europe.

1896.

N. B.—Not more than five to be attempted.

1. Distinguish 'extensive' from 'intensive' cultivation. Under what conditions is each kind of cultivation appropriate?

2. What effects usually follow the introduction of Machinery into a trade? Criticise the statement "Machinery will displace manual labour, whenever it can do the work cheaper."

3. Contrast the part played in Production by Nature and Man respectively.

4. Point out the difference between Market Price and Normal Price, explaining upon what each depends, and carefully defining the terms used.

5. Malthus observes that "An inferior mode of living may be a cause as well as an effect of poverty." Examine the effect of the cause here alluded to in lowering the normal wage in any trade.

6. How does the adjustment of Demand and Supply relatively to Labour differ from its adjustment relatively to Commodities?

7. - Why is the "fair" or "normal" rate of profits so much higher in some trades than in others? How is it affected by the number of times the capital engaged in the trade is turned over in a given period?

8. Describe the economic effect of the action of Trade's Unions. Can their claim to have raised the rate of wages in the trades in which they exist be substantiated?

 1897.

1. (a) Discuss the truth of the statement that "competition is the chief characteristic of the modern methods of business."

(b) What classes of goods constitute a man's wealth? What other goods should be included in the National Wealth?

2. (a) State the Law of Demand for any commodity and also the Law of Derived Demand for any one of its productive factors.

(b) Show by illustrative examples when the *elasticity* of demand is greater or small.

3. Explain by means of a diagram the Law of Diminishing Returns of the produce of land.

(b) Ought the producer's Surplus to be considered the Rent of the land?

4. Give a brief summary of the influence of Machinery, and of Production on a large scale in modern industries.

(b) State the law of Increasing Returns.

5. Show by means of diagrams, how the normal equilibrium price of a commodity is arrived at, when the commodity obeys the laws of Diminishing Returns and Increasing Returns respectively. Also show that the equilibrium is stable.

(b) If the Indian Government were to give up the whole of its land revenue, would the price of grain be cheapened thereby?

6. Enumerate the peculiarities which distinguish the human factor from the other factors of production, and briefly summarise their effects.

7. (a) Point out the fallacies in the opinion that a general reduction of the hours of labour would raise wages by making labour scarce; and distinguish those cases in which the eight hours labour system might be economically introduced.

(b) Discuss the merits of the claim of Trades Unions to make economic friction act on the side of the workman.

1898.

1. "The conception of capital involves two fundamental attributes: that of 'productiveness' and that of 'prospectiveness.' Explain this. Distinguish Consumptive Capital from Auxiliary Capital.

2. What are the elements of the Cost of Production, and of what sort of commodities does it regulate the value?

Point out the ambiguity of Mill's use of the term Cost of Production. What terms does Marshall propose to substitute?

3. What analogies can be drawn between industrial organization on the one side and the physical organization of the higher animals on the other?

4. Examine the relation between the price of agricultural produce and the rent of land.

Show that the rent of a mine should be calculated on different principles from that of a farm. What do you understand by Quasi-Rent?

5. What is the National Dividend of England and how is it made up? To what extent is it increased by Foreign Trade and why is the increase now less than it formerly was?

How has the cheapening of transport changed the character of English Imports?

1899.

(*N. B.—Not more than seven questions to be attempted.*)

1. What is meant by the phrase "Man produces and consumes only utilities"

Explain the terms 'Productive labour' and 'Productive consumption.' Give examples.

2. Explain the terms :—Wealth, Capital, Fixed Capital and Circulating Capital, with examples.

3. State and explain the Law of Diminishing Utility. What is meant by Marginal Demand Price ?

4. State and explain the Law of Diminishing Returns. Explain the phrase Margin of Cultivation.

5. Examine the advantages of the Division of Labour. Weigh against them its disadvantages (if any).

6. State and explain the Law of Constant Returns. Illustrate your answer by examples.

7. Explain the truth of Ricardo's doctrine that ' Rent does not enter into Cost of Production.'

8. Examine the statement that "Interest tends to equality."

9. Distinguish between Cost of Production and Cost of Re-production, and examine their respective influences on value.

10. Briefly estimate the services of Adam Smith's "Wealth of Nation" to Economic Science.

11. Explain the chief proposition of Malthus' Essay.

12. Explain what is meant by the terms Abstract and Deductive, and Inductive and Historical methods as applied to Political Economy.

1900.

(N. B.—Candidates are to attempt eight questions only).

1. "Political Economy is the name of that body of knowledge which relates to wealth." What is Wealth? What mistaken ideas have formerly prevailed as to the nature of Wealth?

2. What is meant by the Territorial Division of Labour? How is it an argument for Free Trade? Criticise the argument against Free Trade, which is based upon the exhaustion of the soil in the process of Agriculture.

3. "Value depends wholly upon the relation between Demand and Supply." Explain this defining the terms used. What is the relation of Labour to Value? What do you understand by the Final Utility of a Commodity?

4. How does Walker define Money? Explain and illustrate the statement that "no machine economises labour like Money." Distinguish Economic from Political Money, and mention the chief arguments against the latter.

5. What is the Ricardian Theory of Rent? State and criticise Carey's attack upon it. How far is the theory in question applicable to actual circumstances?

6. "The state of Trade revolves apparently in an established cycle." What does this quotation mean and what light does it throw upon the origin of Commercial Panics?

7. Show that International Trade is governed by a difference, not in the actual cost of the commodities traded in, but in the comparative cost. Upon what does the value of an imported article depend?

8. Explain the phrase "Unearned Increment," and enumerate the arguments for and against the forfeiture of this Increment to the State.

9. State and criticise the Wage-fund Theory.

10. What is meant by the Abstract or English School of Political Economy? Name the most important English writers who have followed the methods of this school, and indicate the essential limitations under which it labours.

1901.

(Not more than SEVEN questions to be attempted).

1. The requisites of production are Land, Labour, and Capital. Upon what conditions does the productiveness of Labour depend ?

2. What are the essentials of Value ? What regulates the value of agricultural produce and manufactured goods respectively ?

3. Explain the functions of Money. Why are the precious metals chosen to fulfil them ? How is the territorial distribution of Money affected by the agency of Price ?

4. What is necessary for the establishment of Foreign Trade and what classes of country benefit most by it ? What is the 'Equation of International Demand' and how is it effected ?

5. What is Walker's Theory of the relation of Wages to other shares of the Product of Industry ? Contrast this with the "English" Doctrine of Wages.

6. On what grounds does Adam Smith argue against restrictions of "natural liberty" ? In what respects has "later knowledge and enquiry" shown the advantage of a modification of this policy ?

7. "It is a striking example of the irony of fate that the writings of so strong an individualist (as Ricardo) should have supplied the two fundamental doctrines on which the superstructure of modern socialism rests." Explain the allusion in this passage.

8. Distinguish Market-Price from Normal-Price, and state on what they both depend. Show that "Normal-Price is not a single price."

9. In what points have Cairnes and Jevons supplemented Mill's Theory of Value ?

10. Contrast the economic conditions of the "pre-economic age" with those of the "great commerce." Why is London the financial centre of the world?

1902.

(Only SEVEN questions may be attempted.)

1. Compare the part played by Nature in Production with that played by man.

2. "The cost of transforming raw materials into manufactured articles tends to decrease relatively to the cost of procuring the raw materials themselves as civilization advances. What are the reasons for this?"

3. What qualifications of the doctrine of *Laissez-fair* have been suggested by the practical experience of "restrictions upon labour" and "restrictions upon trade"?

4. What does Walker mean by saying that "the industry of the world is not tending towards Democracy, but in the opposite direction"?

5. (a) State Ricardo's Theory of Rent.

(b) Why is it that "the Rise of Rent may be a symptom, but is never the cause of Wealth"?

6. "Profits do not form a part of the price of the products of industry and do not cause any diminution of the wages of labour."

State and criticise Walker's explanation why they do not.

7. "The changes in the purchasing power of gold affect different classes of the community in different ways and degrees." What is the cause of the fluctuations in the value of money? Why is it that different classes are differently affected by these fluctuations?

8. If a large increase be made in the currency of any country, show how, by International Exchange, this increase tends to spread itself equally over all commercial nations.

9. State Adam Smith's Cannons of Taxation and discuss their value as a Theory of Taxation.

10. Describe what Bagehot calls "the pre-economic age" and contrast it with the "great commerce."

1903.

(Not more than seven questions to be attempted.)

1. What is meant by the Law of Diminishing Return ? Illustrate your answer.

2. Define Capital and consider whether Land and Intelligence are properly included in the term.

3. Into what shares is the produce of work usually distributed ? Give an instance. How has the rise of Entrepreneurs affected this distribution ?

4. State and discuss the Wages-fund Theory.

5. Explain the terms "Normal Value" and "Market Value" and show what causes commonly bring about divergencies between the two.

6. What are the characteristics of the precious metals, which especially fit them to serve as Money ? On what grounds would you refuse the name of money to Cheques and Money-orders ?

7. What steps can the Bank of England take to avert a commercial crisis ? What is its usual policy during a crisis, and how do those measures operate ?

8. "The Ricardian Theory of Rent is based on the hypothesis of competition." Give an analysis of what is required in order that competition may be effective on the part of both landlords and tenants and point out some of the circumstances which tend to interfere with effective competition on either side at the present time in India.

9. Enumerate the chief conditions that bring about a rapid increase of population. How far, according to Malthus, is such increase an evil ?

10. State and discuss Adam Smith's arguments in favour of Free Trade.

1904.

FIRST PAPER.

1. Explain what is meant by Combination of Labour, and show how it is related to Division of Labour.

2. Distinguish between Fixed and Circulating Capital. Illustrate the distinction in detail in the case of a Railway Company.

3. State the law of Diminishing Return in a form sufficiently full and guarded not to give an opening for the criticism to which it has been subjected by Carey and others. Show its bearing upon the growth of population.

4. State the Law of Demand. What is meant by elasticity of Demand? Instance two Indian commodities the demand for which is elastic in the case of one, and inelastic in the case of the other, assigning the reasons for your opinion in each case.

5. (a) What is meant by 'Equilibrium of Demand and Supply'? Explain how such equilibrium establishes itself (1) in the case of temporary equilibrium, and (2) in the case of normal equilibrium.

(b) Explain clearly the effect of a large increase in the demand for Indian mangoes for export to Europe, explaining exactly the effect upon the price (1) in the first 3 years, and (2) in 30 years.

6. What circumstances give rise to the localisation of industries? Mention the chief advantages and disadvantages resulting therefrom.

7. Define Credit. Show how it assists production. Explain how it acts on prices, and describe the effects of an excessive extension of Credit.

8. Discuss the statement "Rent does not enter into Cost of Production." In what way does Marshall consider it necessary to interpret and restate the principle? Explain the application of the principle to Quasi-Rent.

9. Explain how the Equation of International Demand is established, showing (1) how the values of imported and exported commodities are determined between two countries, and (2) between more than two countries.

10. (a) What are Adam Smith's four Canons of Taxation?

(b) Explain why a tax on a commodity will probably raise the price of that commodity by more than the amount of the tax.

(c) On what grounds does Mill advocate the retention of indirect taxation? Mention the practical rules which he suggests for reducing the inconveniences of taxes on commodities,

SECOND PAPER.

1. (a) Distinguish between Economic Uniformities, Ideals, and Principles and define the three divisions of Political Economy based on these distinctions.

(b) "Political Economy, regarded as a positive science may be said to be independent of Ethics." Fully explain this.

2. (a) Clearly show on what grounds the Science of Economics requires to be treated in separation from general Sociology.

(b) Show, on the other hand, that there are certain Economic Problems which do not admit of a satisfactory solution on the mere hypothesis of the "economic man."

3. (a) Point out the use of discussions concerning definitions in Political Economy.

(b) State the conditions to be satisfied in framing Economic Definitions, and give the grounds for criticising and rejecting any particular definition.

4. State the main forms of the 'inductive method' in Economics and illustrate the procedure in each form by an example. On what grounds does Cairnes declare the Inductive Method to be inadequate in the department of the Exchange and Distribution of Wealth ?

5. Keynes says that History may serve either to illustrate or to criticise or to establish Economic Theories. Explain and illustrate these several functions of History.

6. (a) In what sense must we admit the "relativity of Economic Doctrines"? Discuss this question with special reference to modern England and India.

(b) Can the view of the relativity of Economic Doctrines be reconciled with the universality claimed for the fundamental principles of Economic Theory ?

7. Sketch the progress of the manufacturing industry in England under the following heads:—(a) Craft guilds, (b) the Domestic system, and (c) the Factory system. Point out the causes of the successive changes of the systems.

8. Describe the mercantile system of commerce with reference to (1) its object, and (2) its method of securing that object. Distinguish between the "Bullionists," and the "Mercantilists."

1905.

FIRST PAPER.

1. What are the factors of production ? Discuss the causes which govern the increase of Capital.

2. What is the Law of Diminishing Returns ? Discuss the following statement:—"An increase of population is necessarily followed by a reduction in the wealth per head of the people."

3. What are the advantages of production on a large scale? Give examples to show the class of industries in which these advantages are most marked. Discuss the advantages of (1) production on a large scale, and (2) production on a small scale, in the case of agriculture.

4. State the Law of Demand ; what is meant by a Demand Schedule ? Give a hypothetical Demand Schedule for a city of 10,000 inhabitants in India in the month of June.

5. Explain and illustrate the term Joint Demand. State the Law of Derived Demand and illustrate your answer by the case of an industrial product of India.

6. What are the advantages claimed for the Metayar system of land tenure ?

Discuss the consequences which follow from allowing the agricultural rents of small tenants to be determined by unrestricted competition.

7. (a) Upon what does the value of money depend ? Give some reasons for the fall in the value of the rupee in the last 100 years.

(b) By what means can the value of a paper currency be maintained at par ?

8. Discuss the manner in which rents are affected by a tax upon agricultural produce.

SECOND PAPER.

(N. B.—Three questions to be attempted from each group.)

A.

1. State the disadvantages under which India labours through her dependence upon agriculture ; and show how her economic position could be improved through a greater diversity of industry.

2. Marshall says, "Nearly all labour is in some sense productive." On what grounds then are certain kinds of work generally called "unproductive." How would you class the work of domestic servants ? Illustrate by reference to the household of a wealthy Indian gentleman.

3. What conditions lead to territorial division of industry ?

4. Under what circumstances is a Joint Stock Company more beneficial to the community than a private undertaking? What limits, apart from those impossible by a legislature, are there to the growth of a Joint Stock Company?

5. Discuss the conditions on which the extent of the market for a commodity depends. How far does Northern India satisfy the conditions of a good market for (a) wheat, (b) bricks?

6. State the various theoretical conditions for determining "house-rent."

B.

7. Indicate the causes to which the rise, and later on the decay, of the Domestic System of Industry were due.

8. Briefly sketch the growth of the British Colonies, stating in what way trade between them and England was regulated in their early days.

9. What are the objects of Trades Unions? Criticise very briefly the methods the Unions have employed in attaining their objects.

10. To what causes do you ascribe the poverty and misery of the English working classes from 1760—1849?

11. Sketch the growth of Economic Science in England.

C.

12. What distinction is there between an Economic Law and an Economic Precept?

Demonstrate the importance of this difference in economic discussions.

13. How far is abstract hypothesis useful in Economics? Illustrate your answer by an example.

14. Discuss and illustrate the limitations of the *empirical* method in Economics.

15. What value have Statistics for the Economist? Give the precautions needed in their compilations.

16. Show the importance of Economic History to the Economist, pointing out also the dangers of excessive dependence upon History.

1906.

FIRST PAPER.

(E. B.—*Not more than eight questions should be attempted on the whole and not less than three out of each section.*)

A.

1.—(a) Explain the term *Seigniorage*, and show how the Indian Government derives a profit (1) from the coinage of Rupees, and (2) from the issue of currency notes. Are these notes inconvertible paper money?

(b) In what circumstances does the debasement of the coinage cause depreciation of the value of money?

2. Explain the causes determining the rate of Interest. Account for the existence of different rates of Interest in the same market.

3. Briefly state Walker's theories of (1) Profits, and (2) Wages. How does he propose to help the labourer to obtain his theoretical share of the product of Industry?

4. Write a short account of the Co-operative movements in the middle of the 19th century. Explain the chief advantages and also the difficulties of Co-operation. In what department has Co-operation been most successful?

5. Explain what is meant by *Par of Exchange*. When will Bills of Exchange on a country A be below par in a country B, and what will be the limit of discount?

6. Distinguish between Direct and Indirect Taxation, and state the chief objections against each.

B.

7. Give an account of the Manorial system in England.

8. Explain the commercial and industrial policy of Edward III, contrasting it with the policies of his predecessors and successors.

9. What were the main features of the economic policy of the Elizabethan age? How did it affect English relations with India?

10. Give an account of the main causes that led to the rise of the factory system of manufactures. Describe the change in the localisation of Industry in England that accompanied the rise of the system.

11. Briefly characterise the contributions made to English economic theory by (1) Malthus and (2) Ricardo.

SECOND PAPER.

(Four questions to be answered from A, and four from B.)

A.

1. Write short notes on :—Prime Cost ; Wages of Management ; Marginal and Trade Risks.

2. Show how an increase of population is not necessarily accompanied by increased pressure on the means of subsistence. Using your answer as a basis sketch the general outline of an economic policy for India.

3. Show briefly in what ways actual rent may differ from economic rent.

4. Explain exactly what you understand by the "normal price of a commodity."

5. Show the importance of the principle of substitution. Illustrate your answer by Indian examples.

6. Contrast the conditions governing the supply of labour with those governing the supply of any other commodity.

B.

1. "Political Economy is abstract and deductive." Explain and criticise.

2. Show the advantages of mathematical methods in Political Economy.

3. What are the tests for the validity of economic definitions? Show also the relativity of economic definitions.

4. How far can we claim universality for abstract economics?

5. Briefly point out the weakness of pure induction in Political Economy.

6. "A reproach is frequently levelled against statistics that 'figures will prove anything.'"

"Figures themselves never lie."

Reconcile these two statements.

1907.

FIRST PAPER.

(N. B.—Eight questions only to be attempted. Questions I., IV, and XI are compulsory.)

1. Explain carefully "High prices mean high rents, and high rents mean high (intensive) farming."

2. Give the substance of the conclusions reached by Malthus in his 'Essay on the Principles of Population.' To what extent are these conclusions applicable to modern India?

3. Point out the various obstacles to the mobility of labour in India. By what means may these be lessened?

4. Analyse carefully the conception of "profits." Explain the term "No-Profits Employer."

5. Define and illustrate your definitions:—total utility; marginal utility; elastic demand, and supplementary costs.

6. What is meant by "co-operation"? Describe its various forms. Point out in what ways the principle might be applied to India?

7. Point out the advantages possessed by large firms. Why is the progress of such firms much slower in some industries than in others?

8. Show the connection between "Standard of Living" and "Efficiency of Labour." Explain "Low wages do not necessarily mean cheap labour."

9. Show the importance considering consumer's surplus with regard to State or Municipal undertakings. Why are State undertakings at once so necessary and so useful in India?

10. Trace the efforts probable in the case of an increase of demand for one of several joint products.

11. "When the causes that determine short period fluctuations of production are under discussion, the net income derived from the investment of capital may be classed with rent proper." Explain and illustrate.

SECOND PAPER, 1907.

(Candidates should take up eight questions only; two from Section A and three each from Sections B and C).

A.

1. Define Price. Shew that the value of money, like the value of any thing else, is purely a question of Demand and Supply.

2. Define 'Inconvertible Paper Money.' "It is at a grave political crisis that a nation generally adopts Inconvertible Paper Money." Why is this? Give examples from history to show the objections to such a currency.

3. Carefully explain whereon depends the normal value, in a certain country of commodities imported from other countries.

B

4. Carefully explain and illustrate by examples, the employment, in economic reasoning, of the Method of Difference. Point out the special risks inherent in this method of fallacious reasoning.

5. Cliffe Leslie criticises the conception of a general desire for wealth as a "barren abstraction." Carefully explain what is meant by "Abstraction" and why the abstraction in question is called *barren*. Point out, against Cliffe Leslie, the valid uses of this abstraction within certain limits.

6. Discuss the question whether there can be any principles of abstract economics for which universal validity can be claimed. Criticise the view, held by Bagehot, that economic doctrine is practically nothing more than the theory of modern commerce.

7. Examine the condition of the relativity of statistics. Give concrete examples illustrating the several conditions.

8. Give an account of the rise of towns in England. In what ways was the development of towns influenced by the Merchant Guilds, and the Craft Guild?

9. "Social discontent was prevalent at Elizabeth's accession, and it is to her credit as a Sovereign that at her death danger from that source had passed away." Stat the chief measures and enactment by which the improvement here referred to was brought about.

10. State the main agencies which co-operated towards the rise of Factory System. Mention the provisions of the most important Factory Acts.

11.—(a) Analyse the circumstances which led to the rise in rent and fall in wages in the course of the 17th century.

(b) Account for the depression in English agriculture which set in during the last third of the 19th century.

1908.

FIRST PAPER.

(Seven questions to be attempted. Nos. I, VI, VII, are compulsory).

1. "Caution is needed when applying Ricardian analysis to modern English land problems as well as to earlier systems." Explain what is meant by "Ricardian analysis," and show how it is needful to apply it with "caution" to the cases specified. Point out the chief advantages for the modern English system of land tenure.
2. Give an account of the causes to which "Localisation of Industry" is due, and of the important external economies generally secured by such localisation.
3. Discuss the influence exerted by the introduction of machines on the efficiency of production as well as the quality of human life. Illustrate your remarks with special reference to Indian Factory Labour.
4. What are the special features of the system of the modern production to which the rise of the entrepreneur class is due? What qualities go to make ideal entrepreneur?
5. Define and illustrate your definitions of Real and Money Cost of Production; Expenses of Production; and Factors of Production. Explain and illustrate the operation of the Law of Substitution.
6. "Normal Supply price in every case is the marginal cost of production but the causes, which determine the margin, vary with the length of the period under consideration." Fully analyse the statement.
7. "Interest is the reward of waiting." Explain this. Distinguish between Net and Gross interest and show why the former and not the latter tends to equality. Discuss the economic effects of Usury Laws.
8. What are the main causes tending to render the competition of the labouring classes with the employing class "imperfect." Discuss the question with special reference to Indian conditions of Labour.

9. State and illustrate the chief peculiarities which characterise the action of demand and supply with regard to labour.

10. "All this tends to show that a general reduction of the hours of labour is likely to cause a little net material loss and much moral good, that it is not adapted for treatment by a rigid system; and that the condition of each class of trade must be studied separately." Examine above conditions in detail.

SECOND PAPER.

(Only two questions to be attempted from each section.)

A.

1. Point out the objections to the use of metallic money as a standard of deferred payments. Describe some alternative standards which have been used or proposed.

2. What do we mean by "paper money?" Point out its advantages and the limitations to its employment. What are the necessary safeguards to its use? Illustrate your answer with reference to the Indian system.

3. Explain the chief functions of banking. Criticise the following statement:—"Banks do not create credit; they only give a larger sphere of action to that which already exists."

4. How far are customs statistics indicative of a nation's prosperity? Explain the following:—"An exclusively-maritime country could discharge its obligations to other countries which supply it with necessaries, simply by becoming their carrier without exporting any produce or manufactures to them in return."

B.

5. (a) How far was English industry in the middle ages indebted to the immigration of foreign artisans?

(b) What effect was produced on International Trade by the discoveries of the 15th century?

6. Describe the various kinds of guilds in Mediæval England. How far was the national life influenced by them? Account for the survival of the London guilds after 1547.

7. Write short notes on:—The Domesday Survey, the Black Death, the Dissolution of the Monasteries, the Act of Settlement; The Agricultural Revolution; the Factory Acts.

8. (a) Account for the decline of the class of small agricultural tenants and proprietors in England.

(b) What do you know of the old colonial system?

C.

9. Comment on the following statement:—

(a) The laws of economics are statements in the indicative mood of relations between causes and effects, and not precepts in the imperative mood.

(b) Physical laws are more universally true and less changeable than economic laws.

(c) Political Economy pre-supposes physical sciences.

10. Point out the merits and demerits of inductive reasoning in Political Economy.

11. What are the main objections to identifying Political Economy with Economic History in its broadest outlines?

1909.

FIRST PAPER.

(Only two questions to be taken from each section).

A.

1. What is meant by 'Rent'? How is rent influenced by (a) agricultural improvements, and (b) the increase of population?

2. "As there is no absolute standard of fertility so there is none of good cultivation." Explain and illustrate by Indian examples.

3. What is 'Quasi-Rent?' Illustrate your answer.

B.

4. Criticise the theory of the 'No-Profits Employer. Analyse 'Gross Profits.'

5. What are the essential qualities and the advantages of a Limited Liability Company? Give some reasons for the great increase in the numbers of such companies in recent years.

6. Explain 'Localization of Industries.' What causes led thereto, and what are its advantages?

7. What are the chief essential conditions without which saving is not likely to take place?

What are some of the motives that lead men to save? In what circumstances does thrift cease to benefit the thrifty?

C.

8. Distinguish carefully between 'necessaries for existence' and 'necessaries for efficiency.' Point out the importance of the distinction. Show how standards differ in different countries.

9. State the Law of Demand. Explain with Indian examples 'Elasticity of Demand.' Show the influence of marginal utility on individual demand.

10. Define 'market.' What commodities have a good market? Illustrate your answer from India.

11. What is a 'monopoly'? Explain 'Monopoly, Net Revenue.' How is a monopolist affected by (a) a fixed license fee, (b) a tax on his total products?

SECOND PAPER.

(Three questions to be attempted from A and C and two from B).

A.

1. Some theorists maintain that a separation of the positive from the ethical and practical study of economic

phenomena, while logically possible, is undesirable. What reasons can be advanced in favour of and what objections urged against this view?

2. Cairnes emphasises the 'utter inadequacy' of the inductive method with regard to the great central problems of the exchange and distribution of wealth. To what reasons may such inadequacy be due, and what would appear the right method to be applied to those problems?

3. Illustrate by the analysis of some concrete instance the gain which the economic theorist may derive from the study of economic history. Indicate the weaknesses of the proposition that Political Economy is a purely historical science.

4. Discuss the extent to which mathematical methods are applicable to economic problems, and illustrate by examples the usefulness of such methods.

B.

5. Explain the origin of the institution of Villeinage. Trace the steps by which the 'Villeins' became gradually emancipated. Specially point out the effects of the Great Plague on wages, prices of provisions, and the positions of landowners.

6. Arnold Toynbee said that he 'trembled to think what his country would have been but for the Factory Acts.' Briefly describe the condition of things which those Acts were meant to remedy. Mention the chief Acts and indicate their results. How would you account for the fact that economical theorists of the time combined with the manufacturers in opposing factory legislation?

7. Sketch the expansion of the foreign trade of England in the course of the sixteenth century.

8. Point out the chief causes to which the depression in modern English Agriculture is due. What measures would appear likely to bring about an agricultural revival?

C.

9. Mr. Morison holds that it is 'the difference in the distribution of economical functions' which essentially distinguishes Indian from western economics. Explain this view in detail.

10 "The Indian system of land tenure is something intermediate between complete nationalisation of land and absolute private property in land. Justify this characterisation.

11. Give an account of 'agricultural indebtedness in' India. Describe and discuss the value of the principal schemes which have been proposed with a view to relieving the present state of things.

12. Clearly explain the distinction of 'harvest prices' and 'bazar prices.' Mr. Morison is inclined to infer from the present relations of these two kinds of prices that the position of cultivator as against the grain dealer is improving. Fully state and examine Mr. Morison's argumentation.

1910.

FIRST PAPER.

(N. B.—Candidates should take up Questions 1, 2, 3, 9 and three of the remaining questions).

1. "The application of increased capital and labour to land will add a less than proportionate amount to the produce raised, unless there be meanwhile an increase in the skill of the individual cultivator." Clearly state the grounds upon which this general principle is established and point out the main circumstances by which its action is checked in special cases.

2. Define *interest*. Distinguish between *net* and *gross* interest. What is the reason that, while the rates of net interest on different uses of capital tend to an equality, the corresponding rates of gross interest do not tend to become equal. Account for the high rates of interest prevailing in India.

3. Distinguish between *nominal* and *real* wages. Detail the main points for which an allowance has to be made in determining real wages.

'The wages of every class of labour tend to be equal to the net produce due to the additional labour of the marginal labourer of that class.' Explain.

On what grounds does Mr. Morison make the following statement:—"The rate of wages, which is the paramount question to the vast majority of the people of civilised lands, is a matter of very slight concern to the working class of India.

4. What differences are there, in point of facilities, for a far-reaching division of labour, between advanced communities and such are comparatively backward? Illustrate with special reference to the conditions of India.

5. Fully explain and illustrate the principle that in the determination of value the influence of utility preponderates during short periods, but that of Cost of Production in the long run.

6. Explain the Law of Substitution and illustrate its operation by concrete examples taken from the spheres of (a) material of production; (b) methods of production; (c) employment of labour.

7. What is understood by *derived demand*, and what by *joint demand*? State the Law of Derived Demand. Indicate the general conditions under which a check to the supply of a thing, for which there is derived demand, may cause a very great rise in its price.

8. Discuss the question of the presumable effects, strictly economic and otherwise of a general reduction of the hours of labour.

9. By what facts does Mr. Morison endeavour to establish the conclusion that Competition is a force of no less importance in Indian than in European industry?

SECOND PAPER.

(Four questions only in each section to be attempted).

A.

1. Summarise the views of the extreme 'German' and 'English' Schools of economists as to the nature and scope of Economics. Give what you think to be the correct conclusion in this controversy, with reasons for your statement.
2. How far is it correct to say "Political Economy is mathematical? What advantages may be derived from the use of Mathematical methods?
3. State some of the causes of the difficulty in obtaining reliable statistics. Give the tests of the reliability of statistics. Illustrate your answer with Indian examples.
4. Point out the value of definition in Political Economy.
5. Explain what is meant by 'the Relative Economic Doctrines,' illustrating your answer with reference to the economic conditions of England and India;

B.

6. What are the requirements of a good 'metallic currency'? Use the Indian currency to illustrate your answer.
7. What is paper currency? What are the advantages and the dangers of such a currency? Give a short account of the Indian paper currency.
8. Give an example to show how payments are made between two countries (say India and Japan).
9. What are the functions of a bank? Mention some of the ways in which a bank makes profit.
10. Write short notes on—discount; three months' bills; parity of exchange.

1911.

FIRST PAPER.

[Only SIX questions are to be attempted, of which FOUR must be from the first and TWO from second section.]

A.

1. 'Man can only produce and consume utilities.' Explain and illustrate this statement. What light does it throw on the question as to how far domestic servants and shopkeepers can be regarded as producers of wealth?

2. 'In the earliest stage of man's development man's wants give rise to his activities : later the development of new activities gives rise to new wants.' Distinguish carefully between the two kinds of wants mentioned here. Illustrate your answer.

3. Explain carefully what is meant by an increase of demand. How far is it true to say that an increase in the demand for services or commodities will result in a rise in the price that has to be paid for them?

4. What is the characteristic of land that distinguishes it from other agents of production? Briefly explain the theory of rent and its corollary 'Rent does not enter into Cost of Production.'

5. What effects, immediate and ultimate on (a) wages of labour, (b) prices of commodities, are likely to follow the substitution of machinery for manual labour in manufacture? Do you regard it as probable that this change will take place soon in India? Give reasons for your answer.

6. Fully explain and illustrate Adam Smith's statement that 'it is the normal value of a commodity which economic forces tend to bring about in the long run.'

7. 'The national dividend is distributed among the various agents of production in accordance with the quantity of each several agent, and the services which it renders.' Illustrate this statement by showing what it is that determines the share of the national dividend that goes to labour in general and capital in general.

B.

8. Explain what is meant by the difference between a double and a single standard. (Illustrate your answer). What advantages are claimed for the double standard?

9. An Indian student has to pay for a consignment of bicycles that he has ordered from a firm in London. What will be the best procedure for him to adopt in making this payment? What will determine the amount that he has to pay?

10. What is meant by paper money? What are the advantages and dangers of such money? Illustrate your answer by a brief reference to the Indian system.

SECOND PAPER.

[Not more than THREE questions to be attempted in each Section. Full answers are expected.]

A.

1. Point out the dangers in the exclusive employment of one method in treating economic problems. Give an illustration.

2. What arguments can be adduced in favour of considering economics as an abstract and positive science?

3. The census of India is taken in 1911. Mention some of the difficulties in obtaining reliability in the returns. How might these difficulties be overcome?

4. Point out the difficulties which beset any attempts to solve concrete economic problems by means of a comparison between the economic, social, and legislative systems of two different communities.

B.

5. Explain 'Co-operative Credit.' What are the elementary principles on which co-operative credit societies must be founded? What advantages does co-operative credit offer (a) takavi, (b) mahajans' and banias' loans? Illustrate your answer.

6. In what parts of the Indian Empire are grown wheat; cotton; rice? Write short notes on the importance of these crops in international trade. Point out with reasons the fallacy of assuming that high prices for these products involve a universal burden on the inhabitants of India.

7. How do famines arise? Enumerate the chief (a) preventive, (b) remedial, measures now adopted to meet these calamities.

8. Assume that a railway has just been constructed through a previously unopened district. What economic effects may be expected in the near future?

1912.

FIRST PAPER.

[SIX questions only to be attempted].

1. Explain clearly the following:—Prime costs; supplementary costs; wholesale prices; gross profits; margin of efficiency.

2. How do you explain the differences which arise between the capitalist and the labourer? Why do not similar differences arise between producers and merchants?

3. Give a short explanation of co-operation. Illustrate the various ways in which the principle has been and can be applied.

4. Define Rent and Interest and point out the differences between the laws which govern these portions of the produce of industry.

5. Justify speculation. Distinguish between legitimate and illegitimate speculation.

6. What is a monopoly? How is a monopolist affected by a tax on the total amount of his product? Is it desirable that a community should control any monopoly existing in it, if so, why?

7. State and explain the fundamental principles of Taxation.

8. 'A great feature of modern commerce is the economy in the use of metallic money.' Explain this. Show how this economy is possible, and point out the dangers of such a system.

9. Explain by a simple illustration the method of payment in International Trade. Show how credit affects this method.

SECOND PAPER.

[Candidates should attempt only THREE questions in section A and FOUR questions in section B].

A.

1. 'Economics must be constantly regarded as forming only one department of the larger science of sociology.'—INGRAM.

Explain this assertion and state to what extent you consider it to be justified, giving your reasons.

2. Describe and illustrate by actual examples the different ways in which economic history and economic theory may assist and control one another.

3. 'That able but wrong-headed man, David Ricardo, shunted the car of economic science on to a wrong line, a line however on which it is further urged towards confusion by his equally able and wrong-headed admirer, John Stuart Mill.'—JEVONS.

Give a brief account of the economic doctrines of Ricardo and discuss the criticism quoted above.

4. Trace the influence of the teachings of Adam Smith on economic policy in England.

B.

5. What capital does the Indian agriculturist require for the successful prosecution of his industry, and what

assistance does the Government grant him towards procuring it?

6. Describe the canal systems (a) of the Punjab and of Sind or (b) of the United Provinces and of Madras, distinguishing between the various works in respect of the method of supply and the profits gained or other advantages secured by them.

7. Give a brief account of the mineral wealth of India in coal, iron and manganese. To what extent is the criticism that India is squandering her resources justified in the case of any of these minerals?

8. How are occupancy rights acquired by tenants either (a) in the province of Agra or (b) in the Central Provinces? Describe the main privileges of occupancy tenants and discuss the economic effects of the existence of this form of tenure.

9. What are the home charges of the Government of India? Describe the working of the system by which these charges are met.

1913.

FIRST PAPER.

[SIX questions only to be attempted].

1. What functions does land perform in the Production of Wealth? What does the term 'land' include? Can you suggest a more suitable term?

2. Discuss fully the question as to the effect that the rate of interest is likely to have upon saving.

3. Distinguish between a direct tax and an indirect tax giving examples of each. Under what circumstances would an export duty on a given commodity be desirable?

4. State the theory of Rent. Examine carefully the effect which the export of agricultural produce is likely to have upon rent in the exporting country.

5. What is a bill of exchange? How does it differ from a cheque? What factors determine the variation in the prices of bills of exchange at a given centre?

6. Compare the advantages and disadvantages of farming on a large scale and small scale. Show how co-operation enables the small farmer to avoid many of the disadvantages of farming on a small scale.

7. On what does the efficiency of labour chiefly depend?

8. Show clearly how the marginal efficiency of labour in any trade tends to determine the wages in that trade. Illustrate your answer by examples taken from India.

9. Why is it necessary that a country should possess a sound system of land tenure? What tests would you apply in deciding whether or not a particular system is satisfactory? What tests would you apply in deciding whether or not a particular system is satisfactory? Using the conclusions you arrive at criticise the Matarayer system.

SECOND PAPER.

[THREE questions only from each section to be attempted]

A.

1. 'India cannot be entirely protected from famine by means of irrigation works.' Examine this statement, and briefly discuss the merits of famine-preventives other than irrigation.

2. In what way is the farmer's power of mortgage or alienation an evil? How far is this power restrained in the United Provinces?

3. Mention and comment upon some of the salient features in the present position in India with regard to labour.

4. State briefly some of the more important economic effects that have followed from the introduction of railways into India. Mention some of the difficulties that have attended their introduction. Do you regard further extension of the railway system as desirable, and if so, why?

5. How far is it true that India's industrial future depends more on capital than on technical training?

B.

6. Distinguish between the historical and the abstract methods of economic investigation. What are their relative values?

7. 'In those abstract reasonings which constitute the most prominent part of economic theory, the principles by which the economist is guided in his choice of premises are generality and simplicity. Explain and illustrate this statement.

8.—(a) 'The taking of averages is frequently complicated by the fact that an equal significance ought not to be attached to all the figures.'

(b) 'There are some cases in which to take an average at all may be misleading.'

Explain these statements, with illustrations.

9. Write a note on the difficulty of making experiments in the economic world.

10. What were the three propositions of Malthus? Discuss them in relation to India.

1914.

FIRST PAPER.

[THREE questions from each section to be attempted.]

A.

1.—(a) 'Capital possesses both prospectivity and productivity.'

(b) 'Capital may last for a long or for a short time.' Explain these statements.

2. How does the standard of living affect the efficiency of the labourer?

3. Explain fully the terms—'long period supply price'; 'market price'; 'profits.'

4. 'High prices mean high (i. e., intensive) farming and high farming means high rents.' Show the truth of this statement.

5. 'Production under modern conditions tends to fall under the control of fewer and fewer persons.' What are the reasons for this tendency?

6. What are the advantages claimed for co-operation? Mention its most successful forms.

B.

7. Define 'monopoly,' and illustrate the various ways in which a monopoly can arise.

8. What are the elementary principles of Taxation? Distinguish between Progressive and Proportional Taxation.

9. What is a 'Banker's Reserve'? On what principles ought it to be based?

10. What peculiar advantages and dangers does a Paper Currency possess?

11. Illustrate the procedure commonly followed in settling international indebtedness.

12. Write short notes on the following terms:—
'Legal tender'; 'parity of exchange'; 'taken currency';
'financial crisis.'

SECOND PAPER.

[Three questions from each section to be attempted],

A.

1. What are Council Bills? Examine the mechanism of the system by which payments are made between England and India.

2. Give a brief description of the development of the Indian Railway system and indicate some of the expedients adopted by Government to secure the investment of capital in the Railway system of this country.

3. In India land yields on an average about twelve bushels of wheat per acre. In England the average is about thirty bushels. How would you account for the difference?

4. Examine the effects of the construction of irrigation canals in India on (a) the Revenue of the State, (b) the income of the cultivator, (c) the wages of the day labourer, (d) the receipts of the railways.

5. Discuss the advantages of the Co-operative Credit movement. Illustrate your remarks from the history of any society you are acquainted with. How do you account for the striking success of the movement in some districts and its failure in others?

B.

6. How far are economic laws permanent and eternal? Discuss the applicability of what are called the classical economic doctrines to India.

7. Why can there be no problem of distribution under primitive economic conditions? Examine the nature of the relation between production and distribution in the modern industrial world.

8. Indicate briefly the position of Cliffe Leslie in the development of economic method and theory.

9. In what sense is political economy a hypothetical science? Illustrate your answer by referring to the conception of a perfect market.

10. Estimate the services of mathematics to political economy. Supplement your remarks by references to any economist you know who makes use of mathematics.

1915.

FRIST PAPER.

[*Three questions from each section to be attempted*].

A.

1. Define 'wages.' What determines the general rate of wages in a given trade? Point out briefly the effects on wages of (a) custom, (b) collective bargaining.

2. State the problems peculiar to Labour.

3. Give a concise account of the conclusions reached by Malthus in his 'Essay on the Principles of Population.'

Do modern tendencies give us any reason for modifying these results ?

4. What causes lead to fluctuation in the rent of (a) agricultural, (b) urban lands.

5. Analyse and explain the term 'Profits.'

6. To what would you attribute the modern development of large-scale production and exchange ? How far is this movement beneficial to consumers ?

B.

7. What influence do costs of production exert on (a) market price, (b) the general level of price over a series of years ?

8. Under what circumstances does International Trade arise ? How is payment made for its transaction ?

9. What are the functions of Banking ? Explain the sentence—'A sound and widespread system of banking is essential to the full economic development of a country.'

10. Define 'Direct' and 'Indirect' Taxation. Mention some of the problems which face a Government in connexion with the necessity of raising additional income.

11. Describe the chief features of a modern currency system. Write short notes on 'cheques'; 'bank (or currency) notes'; 'bills of exchange.'

SECOND PAPER.

[Three questions from each section to be attempted]

A.

1. Is it probable that India will ever become a great manufacturing country such as the United States of America or England ? What evidence is necessary in discussing such a problem ?

2. How far is the Ricardian theory of rent applicable to India ?

3. What is meant by the Drain ? Analyse it and say how the payment is effected ? Is an excess of exports over imports peculiar to India ?

4. Give a short description of the cotton industry in India. What difficulties has the cotton industry of this country to face, and is it probable that they will be solved in the immediate future?

5. To what extent does the success of the Co-operative movement depend upon the action of the Government and to what extent on the people?

B.

6. 'There is a large debatable ground in which economic considerations are of considerable but not dominant importance: and each economist may reasonably decide for himself how far he will extend his labours over that ground. Discuss this with reference to the controversies concerning the scope of economics.'

7. Point out the precautions necessary for the collection and interpretation of statistics.

8. Give a short account of Mill's work in Political Economy, and estimate the importance and influence of his writings.

9. Point out the use of history in illustrating economic theories.

10. Of what use is the study of the scope and method of Political Economy? Illustrate your answer.

1913.

FIRST PAPER.

[SIX questions only may be attempted, of which THREE must be taken from Section A, and THREE from Section B. Twelve marks are given for each answer and three marks for the whole paper in respect of arrangement and composition of answer. Total, 75.]

Think over each answer carefully before beginning to write.

1. Give full definitions, with explanations and illustrations in your own words, of the following terms:—*Wealth, Capital, Utility, Price.*

2. Let there be four plots of land : *A, B, C, D*, located in various parts of the country, and let their absolute fertility due to natural causes (when each receives the same application of labour and capital per acre) be in the order stated, namely, *A* most fertile, *B* next, *C* next, and *D* least fertile. In actual fact it might well be found that the rents per acre of these various plots would be in the following order from highest to lowest : *C, D, A, B*. Name all the different kinds of causes which might account for this divergence of rent from proportionality with fertility, giving examples referring to Indian or foreign conditions.

3. What are the advantages and disadvantages of the division of labour? Indicate the special limitations which prevent its being widely applied in agriculture, and show how far you think it could be applied therein.

4. Explain what is meant by *consumer's surplus*. Show that under certain circumstances it is capable of measurement, and state in what units it can be most conveniently measured. How can *consumer's surplus* sometimes be truthfully and usefully represented by a diagram?

5. Describe exactly what is meant by *increase of demand* illustrating your answer by a table of figures, or by a diagram.

Is it possible under certain circumstances for the demand to increase, and yet for the market price to remain unaltered? If so, explain the circumstances.

6. What is meant by the *principle of substitution* in connexion with the production of goods? Invent two or three simple illustrations of your own so as to make the principle clear.

B.

7. 'Cultivators have been limited in the acquisition of better seed, cattle, and implements, by the very high interest they have to pay. Lowered to twelve per cent per annum, the use of new implements, and the making of many

improvements, which otherwise would have been too costly, has become possible. A further reduction of the rate of interest, which may be expected in the course of time, will enable cultivators to adopt permanent improvements and some useful machines, which now would hardly pay.'

Does this statement agree with economic laws? Discuss its relation to the accepted theory of interest.

8. Explain the peculiar part played by the profits of an industry in adjusting supply to changes of demand.

9. Define *maximum monopoly revenue*. Illustrate your definition by means of an example with figures, or by a diagram, which is to be fully explained.

10. Describe how a man, or a group of men, would start a bank, and the general character of the business they would expect to transact.

What is the difference between the 'reserve' shown on the liability side of a bank's balance sheet, and the reserve which appears on the assets side?

11. What are the various functions of money? How, and under what conditions, can paper be made to serve the purposes of money? Quote examples to illustrate your statements.

12. What are the special advantages of an *income tax*? In what particular form is an income tax said to be the most nearly perfect tax obtainable, and why?

SECOND PAPER.

[THREE questions only from each section are to be attempted. The full marks for the paper are 75—viz., 12 marks for each of six questions and 3 marks for the general style and composition of the paper.]

A.

1. Write a note describing the systems of land tenure prevalent in India.

2. 'The natural resources of India are very great; what is chiefly required is their proper conservation, development, and use.' Explain this statement particu-

larly with regard to forests, water-power and the cultivation of cotton, oil-seeds and fruit.

3. At what evils is the Co-operative Credit Societies Act aimed? State the conditions generally assumed essential for the success of a Co-operative Society.

4. Describe the irrigation systems of the Panjab, the United Provinces, and Central India. How far is it correct to say that canal irrigation depends for its complete success on a corresponding growth of railways?

5. Discuss the position and prospects of the coal and iron industries in India.

6. What are the chief difficulties encountered in the effort to develop industries on modern lines in India?

B.

7. Explain what is meant by the 'economic man.' Comment on the hypothesis.

8. The more complex a problem the greater is the helplessness of mere induction in any attempt to solve 'it.' Explain and illustrate this statement.

9. How far is a knowledge of economic theory essential to the study of economic history?

10. In tabulating and reviewing statistics from a number of independent private sources (*e. g.*, from cotton mills) for what faults and defects would you look?

11. Write brief notes on the work of—Adam Smith, Malthus, Ricardo, Mill.

1917.

FIRST PAPER.

(Three questions from each section to be attempted. Each question carries twelve marks, and three marks are reserved for general neatness, composition, and style. Total 75 marks for six questions.)

Read your questions carefully, and let your answers be accurate and concise.

A.

1. Define and explain 'capital.' Show the relative importance of capital in (a) a small agricultural village, (b) a great engineering work.

2. Distinguish between 'situation' and 'fertility rent'. Show how rents may be influenced by the opening up of a country.

3. 'Custom is a great cause of economic friction. Explain and illustrate this statement.

4. Define 'consumer's surplus', and show the importance of its study.

5. What is the real source of all wealth?

6. 'Successful organization is the chief cause of large profits' Comment on this, and illustrate your answer.

B.

7. Assume that a company acquires the monopoly of the supply of salt in a given country. In what respect does the situation differ from that in which the salt monopoly is managed by the Government of the country? What would be the effect of a tax on the profits of company based on its gross output?

8. Explain the nature of gross and net interest and net interest and of profits.

9. Define 'depreciation,' 'insurance,' 'prime cost.' Estimate their relative importance in the supply prices of wicker baskets, sewing-machines, and high explosive chemicals.

10. How do debts between different countries arise? In what way are they settled?

11. Give the chief functions of a bank. In what respect is it true that a banker incurs greater responsibility than any other man of business?

12. 'No single tax can be absolutely fair in its incidence; what is to be secured is the justice of the tax system considered as a whole.' Explain and illustrate both parts of this statement.

SECOND PAPER.

(Six questions only are to be attempted. Not less than two questions to be attempted in each section. The full marks for the paper are 75—viz. 11 marks

for each of six questions and 9 for style, arrangement, and clearness of thought generally.)

Answers to Sections A. and B. to be written in separate books.

A.

1. Discuss the effects in India of Government regulation of the export of (a) wheat, (b) jute.

2. What conditions are necessary to justify the construction of a new railway, (a) in the interior, (b) on the frontier of India ?

3. Discuss the effects in India of (a) a temporary, (b) a permanent, rise in the price of silver.

4. Discuss the relative advantages and disadvantages of the various prevalent means of transporting goods in India.

5. What are the effects on Indian trade of a shortage of shipping.

6. Discuss generally the need for Co-operative Credit Societies in India, and criticize the working of any particular Co-operative Society, whether agricultural or not, with which you are familiar.

7. Under the present conditions what advice would you give an intelligent friend who consulted you as to the best industry in which to invest a capital of Rs. 10,000 ? Give your reasons.

B.

8. Of what use is the study of Economics to the historian, and of Statistics to the honest politician ?

9. Explain and illustrate the discrepancies which arise between the pure theory of Economics and actual facts.

10. What is meant by the terms Inductive and Deductive Methods in Economics ? Give instances of the use and abuse of each.

11. What do you consider to be the characteristics of English, American, and German schools of Economics ? In what lies the particular weakness of each ?

FINISH.